COMET PREPARATIONS BY B.E.A.

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MODERN TRANSPORT

"THE TIMES" OF THE TRANSPORT WORLD

PROGRESS IN FARM MECHANISATION

See Page 13

VOL. LXXXII No. 2117 [Registered at the G.P.O. as a newspaper] LONDON, DECEMBER 12, 1959 PRICE NINEPENCE

CURRENT TOPICS

A Gesture by the N.U.R.

RESUMPTION by the National Union of Railwaymen of "diplomatic relations" with the B.T.C. is welcome news. It was in March that the union gave notice of withdrawal after June 30 from the British Railways Productivity Council, and also from all stages, local and national, of the joint consultative procedure. This was in protest at the Commission's refusal to accept the principle of the closed shop for most of the grades, including porters, guards and signalmen, in its membership. Sir Brian Robertson's plea for reconsideration went unheeded despite stress laid upon the importance of the machinery to management and men in the changing scene of modernisation. Curiously, notification of resumption came on the eve of rejection, for the second time, of the N.U.R.'s claim for a substantial pay increase, following normal procedure before the Railway Staff National Council. It remains to be seen whether the claim will now be carried to the Railway Staff National Tribunal. The signs are ominous; Mr. S. F. Greene, general secretary of the union, is reported as saying that they were "not happy" about arbitration because last year, although it had been agreed that railway workers were underpaid in relation to certain other industries, they had been told that the Commission did not have the money. If, he added, railwaymen had to wait until the Commission's finances balanced, they might have to wait a long time. It is understood that the Commission, through Sir John Benstead, has appealed to the N.U.R. to follow the example of the Transport Salaried Staffs Association and the Associated Society of Locomotive Engineers and Firemen and await the report of the independent committee which is now reviewing railwaymen's pay and comparable rates in industry.

The Competition for Labour

THIS report is expected early in 1960. If favourable to the men the case for immediate increases will be difficult, if not impossible, to resist. In that event some Government financial backing, if only to tide the railways over the transition period, may reasonably be expected. Meanwhile the men's case has been strengthened by a statement last week to the London and South Eastern Regional Board for Industry by Mr. John Ryan, its vice-chairman. In referring to the seriousness of the labour position, Mr. Ryan, who is also a member of the Western area board of the B.T.C., said that some sections of transport in the London area had recently been "almost at breaking point because of the acute shortage of workers." London Transport Executive was inclined to question this assertion on the score that the Underground is only about 300 short of its establishment of 10,000. On the other hand the Western Region is certainly feeling the pinch. Posters have been put up at all stations between London and Reading apologising for poor timekeeping and giving as one of the reasons the shortage of key personnel, such as drivers, firemen, signalmen and guards. The loss of staff is attributed by a regional spokesman to the competition—if not enticement — of private industry. Parallel with staff shortages goes a fear of modernisation producing redundancy and, recognising this anxiety, the B.T.C. has this week given an assurance in principle to all who were in the conciliation grades on January 1, 1958, against discharge on grounds of redundancy, provided offers are accepted of alternative employment, possibly a change of work, and possibly a removal to another place of employment. Footplate staff are already covered in this respect.

Motor Vehicle Research

AT the annual luncheon of the Motor Industry Research Association its president, Mr. A. B. Waring, was able to report unquestionable proof of the superior reliability of British-built motor vehicles and to say that not only was our commercial vehicle production up by 40 per cent, but that they were clearly up to the requirements of customers at home and overseas. The average number of vehicles on test at the Lindley proving ground of M.I.R.A. was 45 and some 2¼ million vehicle-miles a year were traversed on the tracks. Research projects included investigations of aerodynamics, suspension, stability, design data for highly stressed components and the mechanical properties of engines. There were wind tunnels for full-scale and quarter-scale experiments, a colonial course, a humid hot chamber and a decompression chamber, with 15,000 sq. ft. of new buildings in hand. They were striving for improved mechanical properties and safety and for reduced cost. Their annual income was £200,000 of which £60,000 came from the Department for Industrial and Scientific Research, but their need was £300,000 a year; in that connection it was pertinent that taxation from the motor industry produced £600 million a year. Besides what was done co-operatively at M.I.R.A., the motor industry spent £20 million annually on individual research. He paid tributes to the work of Mr. V. W. Pilkington, chairman of the M.I.R.A. council, and of Dr. A. Fogg, director of M.I.R.A. Mr. Reginald Maudling, President of the Board of Trade, the principal guest, referred to growing international competition and the urge for local assembly, leading to local manufacture, which underlined the need for such corporate research. Everyone welcomed the expansion of the motor industry, but its spread into areas where the population was under-employed had to be considered—the location of new plant was a national problem. He did not, however, expound the corollary problems arising from division of factories engaged in what is basically one process into scattered groups.

Vehicle and Load Protection

NEARLY 20 examples of vehicle immobilisation devices were demonstrated at a London haulage depot this week at the initiative of the recently formed vehicles security committee of the Road Haulage Association. The problem of theft of vehicles with their loads, and thefts from vehicles, is a mounting one in the Central London area, as readers will know from reports in our columns. Active in the work which the R.H.A. is doing to spread a sense of urgency among its members is Chief Superintendent E. Daws, of New Scotland Yard, and he handled the demonstration. Among the vehicles used was one with the registration number 1212 OI, sufficient, one imagines, to warn off the merest novice at the game. One of the most promising devices for petrol-engined vehicles, and one which has proved itself with several operators, is that marketed by the Security Products Manufacturing Co., Limited, of Tottenham Court Road, an ignition cut-out and horn alarm which is set in train automatically simply by the removal of the ignition key when the driver leaves. To return all he has to do is to insert and turn a special key beside the cab door. For diesel-engined vehicles with hydraulic braking there is an ingenious brake lock, which the driver actuates by depressing the pedal and turning a key before he leaves the cab. The vehicle cannot be budged. This device is sold by Francis Motor Service, Limited, Forest Gate —a subsidiary of N. Francis and Co., Limited, the London parcels carrier. More complex was a system of buzzers and horns, coupled with the release of a voluminous arsenical vapour if the cab is broken into via a window. The cost of devices ranged from £5 to about £25. Ideally not only the cab but the bonnet (of normal-control vehicles) and the van doors must be protected against sneak thieves in London streets and it is important that those devices should not be regarded as providing long-term protection because none is proof against a determined gang which has a vehicle to itself—while it is parked overnight, for example—in an unfrequented spot. At the moment the marauders lead in ingenuity.

Canals Debated Again

CANAL enthusiasts again had a day out in the House of Commons last Friday when a motion by Mr. David James, the member for Kemptown (whose maiden speech it was) was debated. His object was to ginger the Government into further action on the Bowes Report and particularly in respect of the canals which are not in that committee's estimation needed for transport. He made the points that other countries used their waterways much more than we did, that the canals could form a 2,000-mile strip of national park for holidaymakers and that the British Transport Commission was so engrossed with railways that it was not the right body to administer canals. During a long and leisurely debate suited to the tempo of the medium discussed other old canards were freely introduced—that the railways strangled the canals, for example, whereas canal proprietors were only too anxious to turn their routes into railways or to sell out while the going was good—but it was made apparent that waterways not required for navigation are not eagerly sought by anybody for any other purpose, usually owing to the cost of conversion. Refreshing was Mr. Geoffrey Wilson's exposition of the poor ton-mileage-man-hour ratio of narrow canals and the miles per lock ratio—1½ in Britain on the nationalised canals to 15 in West Germany, owing to our broken terrain. Mr. John Hay, Parliamentary Secretary, Ministry of Transport, pointed out that those responsible for British Waterways were not railway people and never had been; the Inland Waterways Redevelopment Advisory Committee had made a good start, but had only been in operation six months or so; and that the proposal for a canal conservancy to take over Classes B and C canals had a lot of attractions but that its proponents had been over-optimistic about the possibility of public subscription and support.

T.W.A. Progress Continues

HAVING had eight months' experience of operating Boeing 707 Series 120 jet aircraft on its domestic services with, it may be added, very marked success, Trans World Airlines commenced jet operation of its transatlantic routes on November 23 when one of its Boeing 707 Intercontinentals took-off from New York for London and Frankfurt. As recorded in our columns the initial service is thrice weekly in each direction increasing to daily next month. Meanwhile last week saw the introduction of 707s on New York—Paris—Rome flights. The last sector of the inaugural service from New York afforded an opportunity for us to travel on the latest version of this large aircraft and also to study its operation on short stages. The arrangement of the cabins for T.W.A. transatlantic service provides for 134 passengers, of whom 32 fly de luxe and the remainder economy class. The present fashion when new aircraft are introduced seems to be for the airline concerned to expatiate at length upon the interior styling, décor and the like and it becomes hard to wax enthusiastic upon subjects that are in grave danger of over-emphasis. We must in all honesty admit that, despite the rush of designers, colour experts and the rest, the interior of the aircraft is very pleasant and the seats, even in the economy class, are remarkably comfortable. We are less happy about the special cutlery design which may suit one-handed wielders but seems thoroughly awkward when used British fashion. Turning to larger subjects, the aircraft seems quieter than the 120 series and certainly takes-off more quickly and climbs faster.

Pink Plan and Realism

DYNAMIC policies to ease the congestion which annually has paralysed London traffic around Christmas have been adopted by the new Minister of Transport with his "pink zone" scheme, covering the area between Park Lane and Kingsway east to west and Marylebone Road to Piccadilly north to south. It is not, as has been misrepresented, a scheme to harry the motorist and, indeed, as Mr. Marples has taken no special powers he is relying on persuasion and not what has been wrongly described as a ban. Fundamental to strictly enforcing existing no-waiting regulations is the provision of 17 temporary car parks with room for 6,000 vehicles, either with ready access to bus or railway routes or in the inner area itself, and suitable reinforcement of Central L.T.E. bus services. The Underground trains are not uncoupled in the off-peak, giving accommodation all day roundly the same as in the peak hour. Freight operators have to face additional unloading or loading bans near key junctions, but the period at which the ban operates in general is limited to 1 p.m. to 6.30 p.m., so that on balance the situation is not too difficult. The scheme has worked well in promoting a better traffic flow, although some commuter motorists and some temporary parkers have obviously chanced a prosecution or the possibility of having their car towed away. There is plenty of parking space, especially for those willing to pay for the privilege; in the interests of avoiding traffic stagnation it may be hoped that the arrangements will find some permanent place, not only in the West End but elsewhere. With it should go bans on U-turns and crossing to the offside for the selfish convenience of the driver or his passengers plus an analysis of right-turning movements at junctions to see if some can be avoided. If the Minister could persuade authorities with power to lift manholes, dig up the surface and otherwise stop the flow of vehicles on the highway to limit their activities it would be a further useful step.

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BRITISH RAILWAYS

MODERN TRANSPORT

Published Every Friday

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The Editor is prepared to consider contributions offered for publication in MODERN TRANSPORT, but intending contributors should first study the length and style of articles appearing in the paper and satisfy themselves that the topic with which they propose to deal is relevant to editorial requirements. In controversial subjects relating to all aspects of transport and traffic this newspaper offers a platform for independent comment and debate, its object being to encourage the provision of all forms of transport in the best interests of the community.

We desire to call the attention of our readers to the fact that Russell Court, 3-16 Woburn Place, London, W.C.1, is our sole London address, and that no connection exists between this newspaper and any other publications bearing somewhat similar titles.

★

Steps to Save the Railways

WITH the vast increases in traffic by road and air and the prospects of development in speed and capacity in both elements the future role of the railways is uncertain and difficult to define. Apart from the fact that the railways are a Government concern, whose losses must ultimately fall upon the taxpayer, it is in the interests of the community that they should be used to their full capacity and that the vast expenditure on their modernisation shall not have been largely in vain. In an article in the B.T.C. publication *British Transport Review*, Mr. H. Hoyle, movement officer, Eastern Region, British Railways, makes a notable contribution to forward thinking on the subject, with a worthwhile estimate of the potentialities of the railway system and of the types of service likely to secure and hold traffic in face of ever-increasing competition. Transport marketing prospects, as indicated by research already undertaken, coupled with recent trends, suggest increased passenger traffic arising from prosperity and more leisure. In this the railways can compete most effectively for the heavier streams of longer-distance travel and for suburban traffic in the larger centres of population. There will be a progressive increase in the use of oil and electricity for domestic and space heating and for producing power, with the power stations themselves burning less coal and more oil and atomic fuel. Coupled with this will be an increasing tendency to build coal-fired generating stations closer to coalfields and to distribute the end product throughout the grid, with a declining consumption by the gas industry. Coal traffic will thus continue to fall. Total output of iron and steel should increase, and there will be considerable expansion in the chemical and plastics industries and in the products of electrical and other light engineering.

Shaping the Services

THESE examples, states Mr. Hoyle, represent only a few of the possible developments in the next decade which must be taken into account in shaping the services that a modernised railway must provide to make full use of its track and to pay its way. Above all it must find a substitute for much of the coal traffic which last year earned £120 million of revenue; this can only come from increased merchandise carryings. Reviewing improvements in track, signalling, motive power and marshalling-yard layout and location, he points out that with regard to freight rolling stock a definite line of policy has not yet emerged other than the principle that the fleet must be reduced substantially, i.e. from 1,100,000 to 750,000 or thereabouts, and that wagons must be much more intensively used. The speed of freight trains must be increased, but by how much and in relation to what is still obscure, he says. At the moment average speeds of 45 m.p.h. and maxima of 60 m.p.h. are planned for merchandise trains, with 40 and 55 m.p.h. for minerals. Such a target for goods trains he considers much too low, representing—as it does—retrogression rather than progress by standards of prewar days, when fish trains on the East Coast route had 60-m.p.h. timings; he suggests methods aimed at producing over-all transit times which will compare favourably with throughout road transits. For mineral traffic the new wagons will have a maximum speed of 55 m.p.h., determined by the length of wheelbase, and the object must be to raise the speed of such trains to average about 40 m.p.h.; so far results have been disappointing, but research and experiment continue, of which the outcome is hoped to be a thoroughly reliable automatic coupler at a reasonable price.

Future Operation

SO much for the requirements of the traffic; what about the tools for dealing with it? The position in 1970 is estimated as follows:

> The principal main-line routes will allow speeds of up to 100 m.p.h. over long sections, with speeds of 75 m.p.h. on the more important secondary routes. Much of the signalling will be four-aspect, spaced to give essential braking distance for high-speed trains and for maximum track occupation in suburban areas. Electric and diesel locomotives and multiple units will be powered according to the speed and load required, and all locomotives will be of mixed traffic types so that they can work passenger services by day and merchandise by night. Hauled coaches will be run at 100 m.p.h., merchandise wagons at 75 m.p.h. and mineral wagons at a maximum of 55 m.p.h. There will be some 60 modernised marshalling yards at key centres and most of the outmoded clusters of small former company yards will be closed.

Future operation is contemplated in four speed groups: First, the longer distance day passenger trains, averaging 80 m.p.h.; second, and most important, merchandise trains, passenger trains on the more important secondary routes and night passenger trains on all routes, averaging 60 m.p.h.; third, coal and mineral trains and short-distance freight tripping, averaging 30-40 m.p.h.; and, fourth, suburban and stopping passenger trains. Granted that greatest advantage will accrue from running trains as nearly as possible at uniform speeds, the writer emphasises the necessity for trying to assign the four groups to separate tracks or different routes or, alternatively, grouping the trains according to speed. Side-tracking, he says, must be avoided at all costs. On the results of these efforts must depend "whether the railways are to carry the bulk of the long-distance full-load merchandise traffic or go out of business."

Immediate Action

NO time must be lost in revising the services in pace with modernisation in order in the long run to secure what the author describes as "staggering dividends." In reviewing the lucrative long-distance passenger services every Region must plan its schedules according to traffic potential, with emphasis on standard departure times at regular intervals, usually every hour and sometimes less, during the daytime on the principal routes. There must be immediate effort (already apparent on some lines) to make better provision for the longer-distance freight by selecting some of the heavier streams of traffic and giving them improved services in fitted wagons through to destination without calling at intermediate yards. Mr. Hoyle points out that many bulk traffics, such as oil, chemicals, fertilisers and cement, are already passing in sufficient quantities to justify this treatment. The speed of mineral trains might also be advanced by attaching a small brake-fitted portion, or even a scientifically designed braking trailer, next to the locomotive where warranted by the length of journey. During the next few years, while track capacity is being taken by electrification and other engineering work, efforts must be made to secure better passenger-train time-keeping, even if it can be obtained only by extending the schedules. Equally, if not more important, modernisation must be planned in such a way as not to jeopardise the freight traffic.

NEWS SUMMARY

FOLLOWING the recent announcement of an agreement between B.O.A.C. and T.C.A. for co-operation on North Atlantic air services, a comparable agreement has now been reached between Air-India International, B.O.A.C., and Qantas Empire Airways for routes between Britain and the Far East.

Coras Iompair Eireann reduced its loss for 1958-59 by almost £790,000. This year covered only three months of the new management policy.

On its mechanical side the Smithfield Show has been as successful as usual. (See page 13.)

Pressure is building up for the creation of a civilian traffic corps. (See Parliamentary report page 9.)

The Southern Region is contemplating provision for car parks in conjunction with office buildings to be erected over a large number of stations. Schemes have been prepared for Cannon Street, Victoria and Streatham Hill; consultants are to be brought in for a London Bridge scheme.

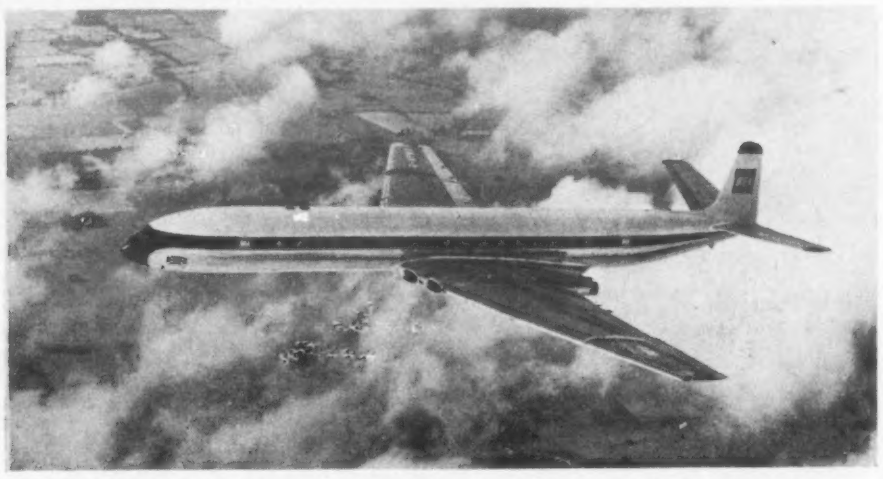
The North Eastern Region is converting most stations on the Hornsea and Withernsea branches from Hull into unstaffed halts. (See page 10.)

COMETS OVER EUROPE

B.E.A. Preparations in Full Swing

PROVING FLIGHT PROGRAMME

DELIVERY ahead of schedule of its first two de Havilland Comet 4Bs to British European Airways took place on November 16, as was noted editorially in MODERN TRANSPORT at the time. The airline has hastened to take advantage of this opportunity and is now engaged on a series of route proving flights with full loads of passengers in order particularly to gain experience in the handling of the aircraft on the ground at the various stations which will be served regularly next summer and also to benefit the training of cabin crews who have to modify their procedures to allow for the change in conditions in the new type of aircraft. The programme also, of course, provides further training for the flying crews.



This de Havilland Comet 4B will be the third to be handed over to British European Airways. It is in the new livery which includes red-painted wings and a Union Jack near the nose. It might have been even more appropriate to employ the civil air ensign

The first of these major expeditions left London Airport on December 3 for Moscow via Copenhagen. The Moscow service with Comets is due to begin as a twice-weekly operation on Friday, April 1, and will be nonstop, but on this occasion the opportunity was taken to put in a call at Copenhagen in order to afford practice there, since a London—Copenhagen service will start on May 1. The scheduled time for this flight will be 1 hr. 40 min. and, at a cruising altitude of 33,000 ft., G-APMB took 1 hr. 49 min. chocks-to-chocks of which 14 min. was spent in taxying. As is by now well known, one of the great assets of the Comet is its ability to take off after a relatively short run and climb quickly, thereby doing much to overcome criticism of jet aircraft from those living or working close to airports. So far as could be judged taking the time from an ordinary wrist-watch the take-off run took 32 sec. and there was no special endeavour made to hurry the aircraft off. That this was so was made apparent the following morning when we took off from Copenhagen for Zurich.

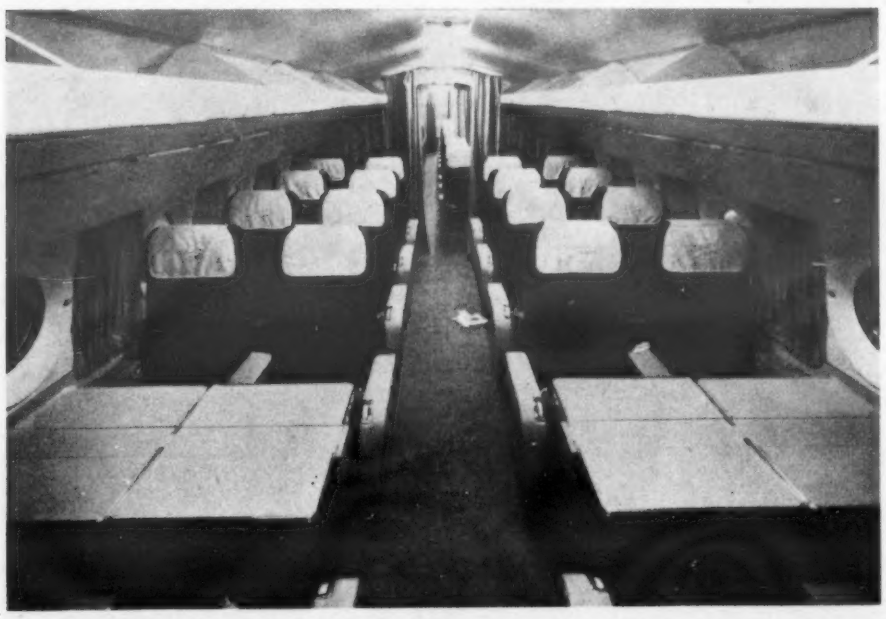
First Venture Frustrated

The landing at Copenhagen after the flight from London was made with the assistance of reverse thrust—at present G-APMC, the second aircraft handed over, has not been so fitted but as soon as G-APMA becomes available to B.E.A. it will be returned for the necessary installation work. The aircraft was refuelled at Copenhagen with considerable expedition, but this brought no great advantage as it happened because weather at Moscow was such that resumption of the flight was deferred. Then reports became more optimistic and we boarded the aircraft once again. The flight plan estimated 2 hr. 10 min. to Moscow at 33,000 ft. cruising height and away we went. The programme envisaged a stop of 2 hr. at Vnukovo Airport and then a return to Copenhagen to nightstop. In fact, after we had been flying for about 1½ hr. we were informed that conditions had deteriorated and that the Moscow airport had been closed to jets. The cloud base was given as 90 metres and that was, in any case, below the B.E.A. minimum for the Comet—later that day the Viscount on the scheduled service from London also had to be diverted owing to conditions. Captain McKeown, who was in command, announced regretfully over the public address system that we should, in consequence, have to return to Copenhagen. Thus it was that a slightly frustrated planeload landed once more at Kastrup after a flight of just under 3 hr.

Plans for a flight from Copenhagen to Warsaw and back on December 4 had had to be revised and arrangements had instead been made for a flight to Zurich. The latter will begin to be served by Comets from London in May when two flights a week will be introduced, while from July there will be two flights daily. The saving in time as compared with the present Viscount schedule will be 40 min., while the London—Copenhagen journey time will be reduced by 45 min. and that from London to Moscow by 3 hr. 20 min. As indicated earlier, the take-off from Copenhagen for Zurich was one which was deliberately hastened and we came off the ground some 5 sec. earlier than on the previous take-off in roughly comparable conditions. Flying time to Zurich was estimated at 1 hr. 40 min. and turned out to be 1 hr. 36 min. at 31,000 ft. The chock-to-chock time was 1 hr. 47 min. There was a certain amount of clear air turbulence but nothing to involve the fastening of seat belts.

Search for Traffic

Later that day the Comet returned from Zurich to Copenhagen and then continued to Stockholm for its scheduled nightstop. Thereafter it had been planned to return to London via Oslo, but disagreement on the subject of aircraft noise—it affects S.A.S. Caravelles as well—made it impossible to do this and, instead, a second attempt was made to reach Moscow, this time successfully. Outward height was put at 34,000 ft. but much of the flight was, in fact, made at 33,000 ft. As it turned out the revised plans made possible a nonstop proving flight from Moscow to London as a foretaste of what will come in April.



Looking aft through the first-class cabin of a Comet 4B to the smaller and larger economy-class cabins beyond

The B.E.A. Comet 4B is arranged as an 86-passenger aircraft with 22 first-class and 64 economy-class seats. The first-class cabin is forward and the economy-class seats are arranged in the rear cabin and in a small cabin forward thereof. Whereas operational requirements have meant that Viscounts on the Moscow service have been able to carry at best 28 passengers eastbound and 30 westbound and often fewer, the Comets will be able to carry a full load in each direction and, satisfactory though this is, it obviously poses the problem of finding adequate payloads. During the summer months there will be a specially reduced fare of £85, representing a reduction of 28 per cent on the current tourist fare. In addition, all-in holidays have been agreed with Intourist at eight days for £90 including the air fare. The Moscow service will be flown at night from London and in the early morning from the Soviet capital.

This first major demonstration of the 4B's capabilities was undoubtedly impressive. The achievements of the Comet 4 are well known, but the 4B represents an attack upon a somewhat different field of air transport operation with its increased passenger capacity and its purpose of economic operation over stage lengths of from 400 to 2,500 miles. Similarly, it is designed for economical cruising at between 20,000 and 38,000 ft., whereas the 4 favours 28,000 to 40,000 ft. The engines are, of course, the well-tried Rolls-Royce Avon RA29

(*Continued on page* 9)

Modernisation is going ahead on SKF

The first twenty 1,160 h.p. 'Type 2' Bo-Bo diesel electric locomotives built by The Birmingham Railway Carriage & Wagon Co., Ltd. for the Eastern Region of British Railways, are fitted with SKF spherical roller bearing axleboxes. Additional orders are in hand at the same builders for a further 27 locomotives of this type for the Scottish Region, and for 98 'Type 3' in the heavier power range for the Southern Region—a total of 145 more SKF -equipped locomotives for British Railways!

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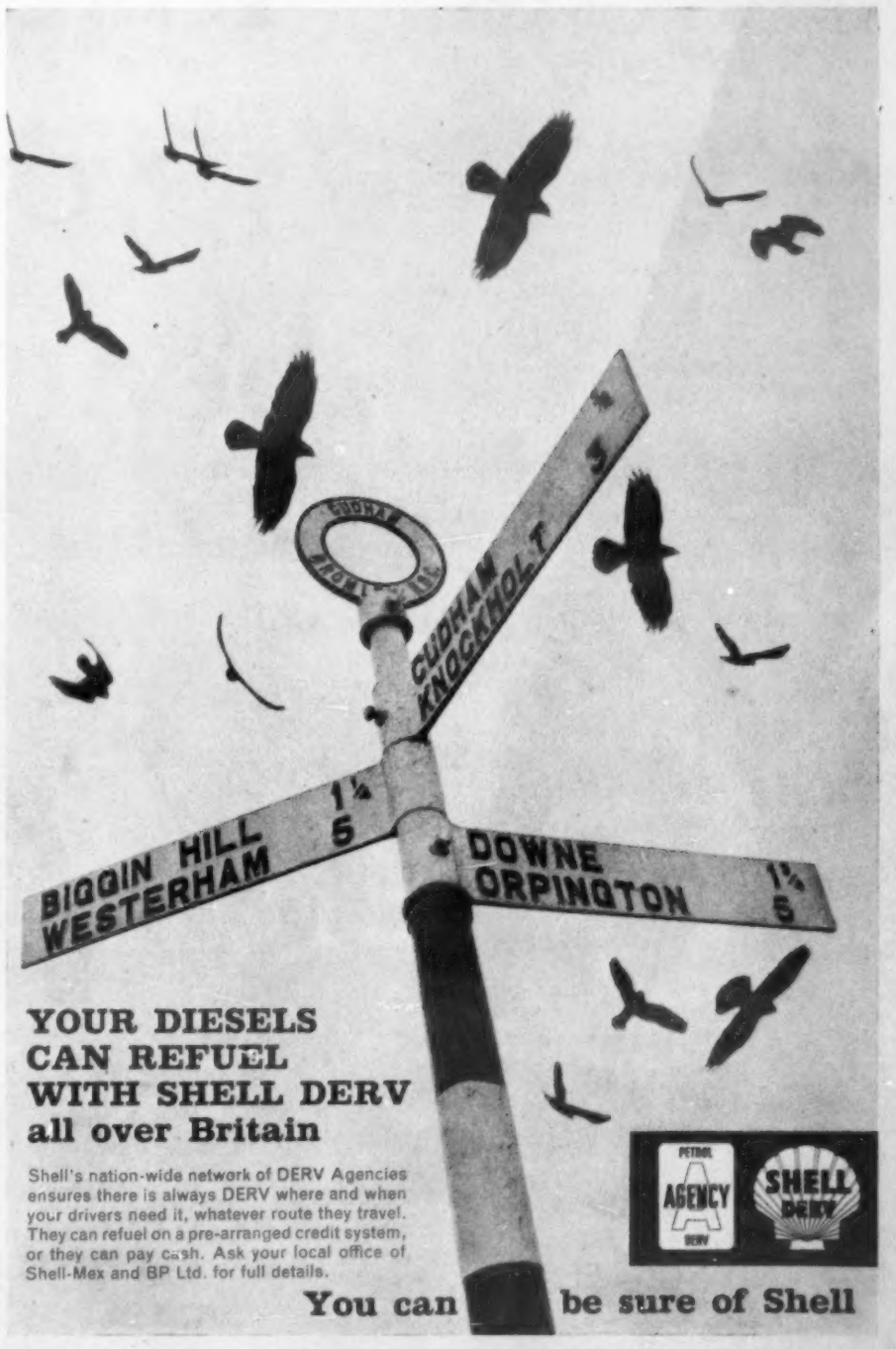

LORRY—BUS—COACH

Morecambe Excursion Coaches

THE question whether excursion coaches should be allowed to pick up and set down on the highway in Morecambe during the holiday season was argued before the North Western area Traffic Commissioners on December 2, when a Ribble Motor Services, Limited, application to do so in Clarence Street was opposed by the Corporation and local operators. Mr. R. Rose, the town clerk, submitted that, as the highway authority, it contended that, apart from authorised stands, excursion coaches should not be permitted to pick up on the highway.

Mr. F. D. Walker, for the company, said it had taken the Corporation nearly 30 years to raise this principle, and Ribble was the only operator against which objections had been pressed. The Florence Motors point in Clarence Street was described in the licence as on private land, but when it took over the business in 1958 it was found there was none and Florence used the highway. When a fresh site was found the Corporation refused planning permission for a new stand. Dispensation granted to use the highway while negotiations were proceeding was withdrawn in August, 1959. Questioned by Mr. Rose, Mr. G. Dawes, Ribble traffic assistant, said it was unaware of an agreement between the Corporation and Morecambe Coach Operators' Association prohibiting the use of booking offices on the promenade when it turned a kiosk on Central Pier to that use. Mr. T. S. Ireland, chairman of the Association, said that as far as he knew, until Ribble arrived on the scene there had been no picking up in Clarence Street since the war. The effect of its operations and the conversion of the kiosk, was a 25 per cent decrease in the receipts of one of his companies, Tower Coaches, Limited, in 1959. The Association supported the principle that excursion coaches should not pick up or set down on the highway. Reserving decision, the chairman, Mr. F. Williamson, said that although they were averse to allowing operation from the highway, they would view Clarence Street, and might make a grant limiting its use by Ribble to one or two coaches at certain times.

Ingenuity in Fish Container

FISH is the cargo carried by the Thames Trader 5-ton truck seen on this page, fitted with a Mann Egerton lift-off container, 14 ft. long overall, with an internal capacity of 500 cu. ft. The container is divided into two equal compartments by means of an insulated partition half-way down the vehicle. This partition has a hinged door which when left open enables the container to be maintained at the same temperature throughout. With the door shut, however, deep-frozen fish can be kept in one compartment with Drikold and chilled fish in the other compartment. Alternatively, chilled fish can be carried in both compartments but the middle door can be left shut whilst small loads are dropped off from the rear compartment, thus maintaining the required low temperature in the front compartment until the last moment.

Mann Egerton 500 cu. ft. insulated fish container on Thames Trader 5-ton vehicle (see story)

Aid for Glasgow Transport

MORE stringent enforcement of parking regulations in Glasgow is promised to prevent traffic congestion and to allow public transport to move more freely during the Christmas period. The decision was taken this week at a joint meeting of the highways and municipal transport committees. Additional policemen are to be on duty to enforce the regulations. In addition special attention is to be paid to the Clyde bridges, which have been the cause of a good deal of traffic congestion.

Northumberland Depot Refused

NORTHUMBERLAND Planning Committee has rejected a plan for the erection of a haulage depot at Rothbury for J. W. Capstaff, Limited, of Newcastle upon Tyne. But Rothbury Rural Council is urging the Committee to rescind its decision on the grounds that Capstaff may have to transfer its activities from Rothbury to some other spot, which would cause about 20 Rothbury men to be thrown out of work.

Lorry Driver Valued at £5,500

DAMAGES of £5,500 were awarded against the British Transport Commission at Nottinghamshire Assizes on November 20 to a Staveley widow in respect of the death of her husband, a lorry driver. He was killed when his vehicle, carrying a nine-ton load, ran away down a hill near Ashbourne, Derbyshire, and was said to have "wrapped itself round a tree at an angle of 90 deg." Mr. H. G. Talbot, for the plaintiff, claimed that the accident resulted from a failure in the hydraulic brake system due to negligence in assembly by a B.T.C. employee.

McKelvie Acquires Paisley Carrier

McKELVIE and Co., Limited, the Barrhead haulage contractor, has acquired the long-established firm of William Cumming (Haulage), Limited, of Well Street, Paisley, and will integrate the Cumming organisation into the McKelvie structure. The McKelvie business has depots at Barrhead, Motherwell, Paisley, Manchester and London, operated by two companies, McKelvie and Co. (B.M. and P.), Limited, and McKelvie and Co. (Manchester), Limited. The Cumming fleet numbers some 50 vehicles.

Three Transport Questions

IN Edinburgh, Mr. J. B. Mitchell, a vice-chairman of the R.H.A., said that it was necessary for the Government to decide (*a*) how transport can be provided at the cheapest cost to the country; (*b*) how a free choice of the different forms of transport should be available to users; and (*c*) how the different means can, as far as possible, be placed on equal competitive terms, and finally how the railways can be made to pay their way without Government subsidy. Unless answers were found to these very important questions, Mr. Mitchell said, there would be no future for transport in terms of benefit to the national economy.

Co-operative Transport Talk

A NATIONAL apprentice scheme spread over seven years or even more and designed to attract the best possible potential to the Co-operative movement was advocated by Mr. H. Woolley (transport manager, Birmingham Co-operative Society), when he spoke to the Scottish Co-operative Transport Association at Bridge of Allan. In another sphere, societies contemplating entering the field of coach services were warned by Mr. Woolley to consider the many difficulties involved. He referred especially to the near impossibility of obtaining licences, the falling number of coach trippers, the near saturation of vehicles for available traffic, the comparatively large amount of capital involved, the normally short summer, the special attention required for vehicles and the space needed for garaging.

Consett Dispute Continues

LEGAL advice is to be taken by Consett Urban District Council concerning a dispute with local bus operators about the payment of a deficit of £2,355 on the running of Consett bus station, which is owned by the council. Before 1957, the bus companies met any deficit on the working of the bus station, but since then have refused to do so because they were not satisfied with the council's system of charges for firms using the premises. Some months ago, the council proposed raising the charge for the use of the bus station from 1s. to 1s. 4½d. per bus per day. The bus operators objected to the increase, and following a public inquiry, the Ministry of Housing and Local Government decreed that both the old and the proposed new charges were too high, and that as from August 1, the rate should be 9d. The amount of £2,355 is the accumulated deficit from April, 1957, to the end of July this year.

Rating of Bus Works

WHETHER a bus engineering works is or is not an "industrial hereditament" has again been raised in a rating appeal. East Yorkshire Motor Services, Limited, has appealed before the Lands Tribunal against a decision of the Valuation Court that its central workshop at Anlaby Common, Hull, was not an industrial hereditament. Mr. J. Raymond Phillips, for the valuation officer, submitted that the whole of the premises were used, generally speaking, to maintain the company's fleet of buses. It was not possible, he suggested, to say that the main activity was manufacture. Mr. David Widdicombe, for the company, said two kinds of work were done on the premises. There was the manufacture and reconditioning of parts and units of vehicles, and the repair and overhaul of vehicles. The premises were used in part for the manufacture of some articles which had nothing to do with the maintenance of buses, such as boards for bus timetables and conductors' bags, Mr. Phillips admitted. It would be justifiable for the Tribunal to consider that work as wholly subsidiary and it could quite properly be disregarded if set against the main object of the premises. Sir William Fitzgerald, president of the Tribunal, said the decision would be made known later.

Lighting and C.U. Regulations

UNDER new regulations coming into force on December 7, vehicle lamps and reflectors must be in working order at all times, day or night. If a driver is charged with having lights or reflectors not in proper order, it will be a good defence to show that the defect arose in the course of a journey, or that steps to remedy it had already been taken. The change is prescribed in the Motor Vehicles (Construction and Use) (Amendment) Regulations, 1959, which further amend the Motor Vehicles (Construction and Use) Regulations, 1955. The regulations also legalise front wheel brakes on certain vehicles, and permit a pressure gauge to be dispensed with on some vehicles with vacuum-assisted braking systems.

Another section of the regulations deals with the carrying of produce or goods on farm tractors. Until this year, this was in most cases illegal, either because it was not permitted under the terms of the £2 licence issued for tractors or because of the different requirements, under the Construction and Use Regulations, for a tractor and a load-carrying vehicle. The first difficulty was removed by the 1959 Finance Act, which now permits a farm tractor to be used under the £2 licence to carry loads under special conditions, e.g. in a transport box or other form of fitted load carrier. Amendments to the Construction and Use Regulations now remove the other difficulty. Consolidated Road Vehicles Lighting Regulations, replacing 1954-58 regulations, have now come into effect. There are no significant amendments.

Bus and Coach Developments

C. H. Reid, Insch, applies for the Rhynie—Aberdeen and Rhynie—Huntly services of Mrs. B. Scott.

Eastern Counties Omnibus Co., Limited, proposes revision of a number of Norwich city services.

O.K. Motor Services, Limited, Bishop Auckland, applies for the licences of Anderson Brothers, Evenwood.

Birmingham and Midland Motor Omnibus Co., Limited, proposes a five times daily coach service between Coventry and London via M1. Journey time would be 2¼ hr.

Application of Harper Bros. (Heath Hayes), Limited, for a Cannock—Birmingham service (MODERN TRANSPORT, January 24) has been refused.

Jennings Coaches, Limited, seeks to reduce its daily service between Beaulieu and Southampton to a Tuesday, Thursday and Saturday operation and to withdraw the evening service on those days.

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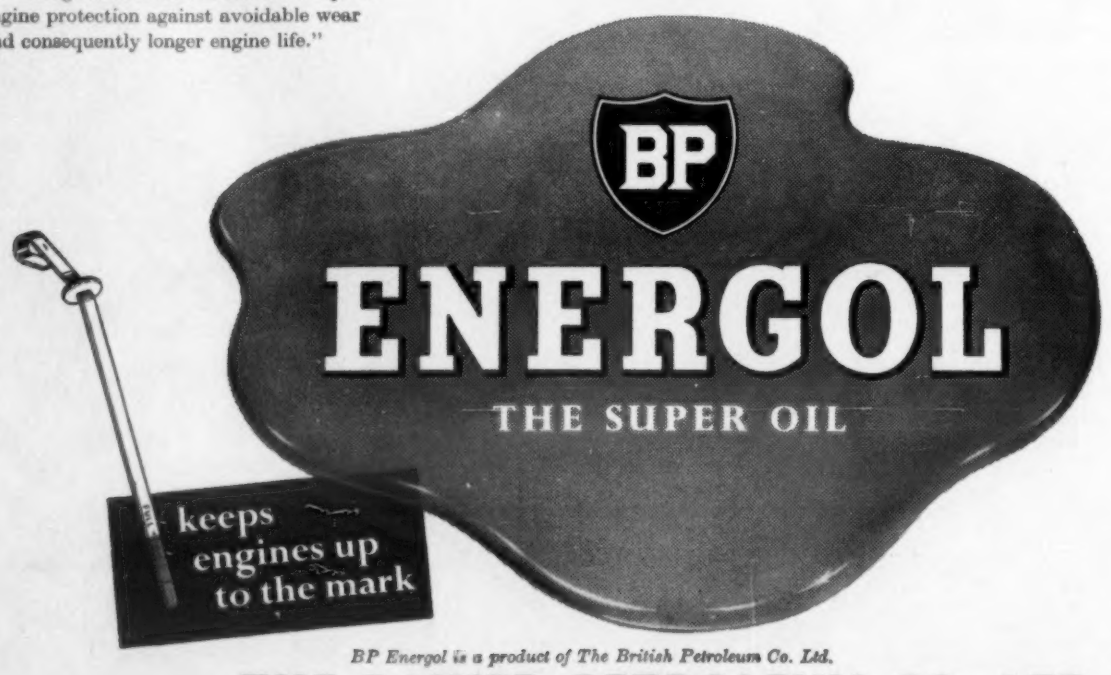

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MODERNISATION AT WORK

On London Midland Region

*By E. W. ARKLE, M.Inst.T., Director of Traffic Services, London Midland Region, B.R.**

THE greatest single feature of the London Midland contribution to the British Railways modernisation plans is the electrification of the main Western lines between Manchester, Liverpool and London, likely to cost in itself upwards of £150 million. The money will be spent within the next five years in four almost equal proportions between civil engineering (way and works and buildings), signalling, overhead structures and distribution plant, and rolling stock.

In order to reduce first costs and simplify the work so as to get it completed in the time, all the new stages of it will be on rather simpler lines than applied to the first (Crewe—Manchester) section. Track layout alterations have been kept to a minimum and wholesale modernisation of signalling cut out, except only at certain key points where it is unavoidable. Nonetheless, it is significant that so large a proportion of the expenditure does not relate directly, but only indirectly, to electrification as such.

Four Area Projects

The work will be carried out concurrently over the whole of the routes, which have been divided up into four area projects, with a project officer directing the whole for the general manager. In this way the methods of the contractors for the recently opened motorway have been studied and adapted, with the substantial difference that the heavy traffic using these lines has to be kept on the move day and night during the construction period.

SCALE OF L.M. ELECTRIFICATION WORK

- 8,000 tons of ballast are required every week.
- 800 bridges have to be more or less reconstructed.
- Several long tunnels have to be raised or opened up.
- 700 drivers require to be trained.
- Complete reconstruction of the passenger stations at Birmingham, Manchester, Coventry and at Euston itself will be necessary besides several others.

The effect on the movement of traffic will be considerable, despite the help given by the Western Region in taking on the bulk of the passenger business between London and Birmingham and Wolverhampton. Ten speed restrictions have to be contemplated on the main route instead of the normal four, thus adding some 20 min. to the journey time of most trains for the next five years. It is hoped that punctuality will not suffer unduly, and the situation has been greatly eased by the recent supply of 27 2,000-h.p. diesel-electric locomotives, which are now successfully hauling more than half the main-line trains into and out of Euston.

Regular Pattern Services

One of the penalties of working at all points simultaneously is that after the opening of the Manchester—Crewe section in September next year, and of the Liverpool section a year later, little or nothing of a public service can be expected anywhere south of Crewe until the whole system is ready for opening towards the end of 1964. This will be more than compensated by the excellence of the service which will then be given regularly and punctually to all passenger and freight traffic on the line, with timings of about three hours between Manchester, Liverpool and London on a regular pattern. No phenomenally high speeds are contemplated, the secret of such performance being the ironing out of the effect of gradients on the running speeds.

The size and scope of this vast scheme, which will occupy a great deal of the Region's attention, will certainly not be allowed to interfere with the modernisation of other lines and activities. A full programme for the conversion of the Midland lines to diesel traction, working from south to north, has been drawn up; parts of it are already approved. Next January the whole of the St. Pancras suburban services will turn over to diesel multiple units; those from Marylebone will follow a few months later.

Diesel Progress

A large number of main-line diesels are on order, but perhaps the most spectacular single event in the near future will be the introduction early next year of the new luxury diesel first-class only express which will run in a shade over three hours between Manchester and St. Pancras. This will set an entirely new standard of comfort and service for this country, but it has to be admitted that scope for the running of such luxury expresses, particularly first-class only, on British Railways is limited.

The London Midland Region now operates 214 two-car multiple-unit sets and 93 three-car sets, and further ones are on the way to allow of the introduction or completion of diesel schemes in North Wales, Lancashire and the Midlands. Much is expected of the fine inter-city express services to be started next summer across the Pennines between Liverpool, Manchester, Leeds and Hull, in conjunction with the North Eastern Region. The roads in this area are not always easy to drive on and the existence of this service should prove attractive to many, besides easing the discomfort of the tunnels on the route.

Great Central

A great deal has been said and written about the future of the Great Central route. The London Midland Region is tackling the question in three stages:

(1) Withdrawal of five pairs of expresses now running between Marylebone and Manchester and Bradford, and their replacement by three pairs of semi-fast trains going as far north as Nottingham. This step is now going through the somewhat complicated T.U.C.C. machine, but it is hoped to operate it, with a very large saving, early in the new year.

(2) The closure of most of the smaller stations north of Aylesbury. This is already in hand, but here the normal entanglements of procedure are supplemented by certain legal difficulties, which will be surmounted in due course.

(3) Long-term developments for the integration of the G.C. and Midland routes. Large capital works might be necessary for such a link-up, and at the moment the Region has enough to do without tackling these, especially with the knowledge that the resources of this route will be valuable during the period of the electrification of the Western Lines.

Advocates of complete closure are apt to overlook the virtues of the G.C. as a through route for such things as Car-Sleeper and Starlight services, to say nothing of large coal movements out of the East Midlands Coal Division and the important suburban business south of Aylesbury. There is a good chance of the G.C. route becoming an important framework for the carriage of parcels and similar traffics between Marylebone, the Midlands and the Manchester area.

Freight

The large-scale freight traffic plan of the Region is well up to schedule and most of the 14 freight depots and two parcels terminals authorised early in the year will be in operation by the end of it. Construction of these has gone forward smoothly from the earliest planning stage to the opening ceremonies. The next series is already planned and includes reconstruction of 15 more freight and five more parcels terminals; in this process the number of sundries depots in the L.M. Region will thus be reduced to 48. Concurrently redundant private sidings are being closed and some particularly promising experiments are starting in the transfer of bulk traffics between road and rail—perhaps the most pressing need of all at the present time.

The *Condor* freight express has made a slow start, but is gradually picking up and winning new customers by the regularity of the 10-hr. service given between the London and Glasgow areas. Simultaneously the steady growth of other fitted freight services continues, and the Region has drawn up a plan for the whole of its marshalling yards, starting with the newly authorised £4½ million Carlisle scheme, on which work has already started.

All these schemes are planned on modern work-study techniques, and much is also being done to apply such recent developments as electronic computers to the more routine sides of commercial and accountancy work, with great advantages for management in the provision of valuable statistical information regarded hitherto as unobtainable without enormous clerical labour.

One important aspect not being neglected in the Region is that of telecommunications. Not only are changes forced upon us by such things as electrification and the need for speedy decisions on commercial matters, but we have also realised the benefits of the telephone and teleprinter as a spur to thought and activity, so much more desirable than the multiplication of correspondence which has been rather a feature of railways up to now.

Men

Lastly, much as we realise that our material efforts must go quickly and are spurred on by the knowledge that we started 10 years later than we should and that M1 is not the last of the motorways, we face also the equally great need for the modernisation of ourselves as individuals. The provision of new equipment does something of itself to cheer and enthuse the worker, but even so it is by the personal attitude to life and to our service of every man who works with it that we are judged. It is a much more intangible problem than that of spending money on capital resources and present staff shortages and arguments are not helpful. But at least I can say that we are aware of it and shall strive to meet it. Meantime, we are also aware that this is the most exciting time for anyone to be starting a railway career that has existed for the last half-century at least.

* Abstract of paper read before East Midlands section of Institute of Transport.

★

POLYETHYLENE ROPE

New Monofilament in Production

HIGH-TENACITY polyethylene yarn for manufacturing rope and cordage is now in production at the Coventry works of British Celanese, Limited. Known as Courlene X3, the new yarn, which has been developed over a period of three years to achieve optimum properties, is spun from Rigidex high-density polyethylene supplied by British Resin Products, Limited. Several important advantages are claimed for Courlene X3 over conventional materials used in rope manufacture. It has a low specific gravity (0.96) and ropes made from it are thus extremely light in weight. Ropes made from Courlene X3 are very strong, being comparable in this respect with nylon and Terylene, and they have extremely good abrasion resistance. These excellent physical properties are maintained over a wide temperature range, from minus 70 deg. C. to 100 deg. C. The ropes do not absorb moisture, are unaffected by chemicals, oils and greases and are not attacked by insects or bacteria. They are available in a wide range of attractive colours which are inherent in the material and do not fade or run.

From the practical standpoint, ropes made with Courlene X3 are also said to have several important advantages. They do not absorb water and are thus unaffected even by prolonged immersion; they do not swell, stiffen or rot. The low temperature properties of Courlene X3 are such that ropes produced from it lose virtually none of their good flexing qualities even under Arctic conditions. For marine use, the low density of the yarn means that ropes are buoyant and float in both fresh and salt water. They are thus easily retrievable and cannot accidentally foul propellers.

Proof of the effectiveness of these ropes has been demonstrated by the use of a long length, 2½ in. circumference, as a mooring line for a 30-ton yacht. After being in constant use in many different waters for a year the rope had not stretched or frayed and had retained its excellent appearance. A 1½-in. runner tackle was used on the same vessel for a similar period and was subjected to considerable chafing in service without fraying or damage. The only noticeable effect of the arduous service conditions was a slight loss of "shine" of the material.

Rope made from Courlene X3 is available from the Gourock Ropework Co., Limited, Port Glasgow, Scotland, and from Lancashire Hill Rope and Twine Co., Limited, Stockport, Cheshire.

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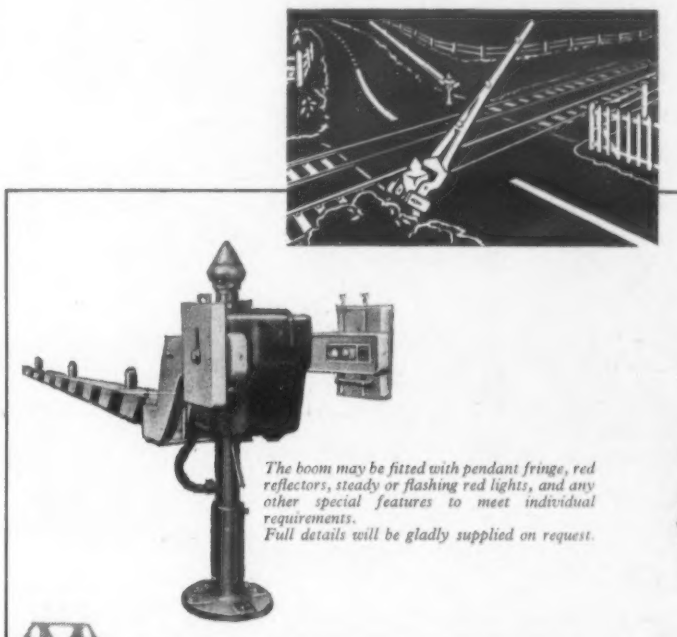

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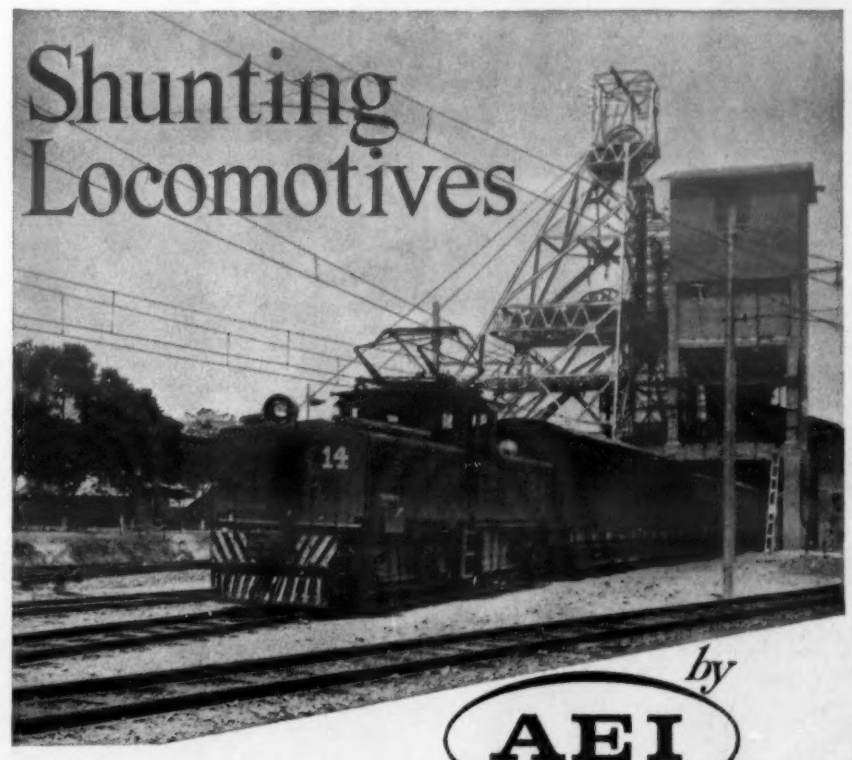

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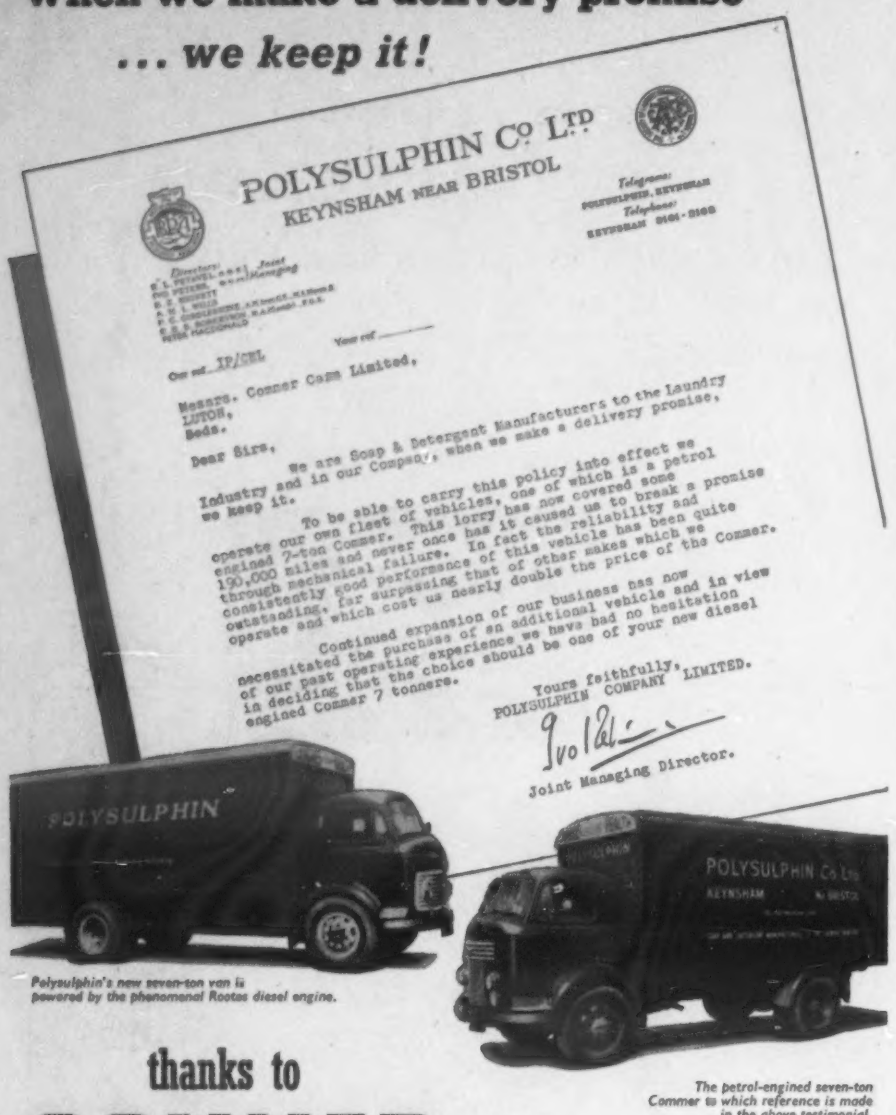
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To be able to carry this policy into effect we operate our own fleet of vehicles, one of which is a petrol engined 7-ton Commer. This lorry has now covered some 190,000 miles and never once has it caused us to break a promise through mechanical failure. In fact the reliability and consistently good performance of this vehicle has been quite outstanding, far surpassing that of other makes which we operate and which cost us nearly double the price of the Commer.
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COMMERCIAL VEHICLE TEST

*Ford Trader Six-by-Two County Conversion**

ECONOMICAL TRANSPORT FOR BULKY 10-11 TON LOADS

FULL approval of the manufacturer, Ford Motor Co., Limited, is accorded to a range of conversions of its Thames Trader 7-ton goods chassis by County Commercial Cars, Limited, Fleet, Hants, through which the maximum gross operating weight is raised to 15 tons. The County conversion range comprises four three-axle chassis with mean wheelbases of 160 in. and 182 in., having single- and double-drive types in each wheelbase. Matching platform, dropside and van bodies are available, that on the long-wheelbase chassis having a length of 20 ft. 11 in. There is also a six-by-four chassis with 132-in. wheelbase available, for which a 9 cu. yd. steel tipping body with twin-ram gear by Edbro-B. and E. Tippers, Limited, is offered. Depending on the chassis equipment and the type of body fitted, payload capacity of the Trader-County six-wheelers ranges between 10 and 11 tons.

The Trader-County six-wheeler takes a 21-ft. long body with standard Ford cab and carried a 10¼-ton load on our road test

TEST RESULTS AT A GLANCE

Vehicle Details

MAKER: Ford Motor Co., Limited, Dagenham, Essex. Conversion by County Commercial Cars, Limited, Fleet, Hants.
TYPE: Thames Trader six-by-two lorry for 15 tons gross weight.
ENGINE: Ford 6D six-cylinder direct-injection four-stroke diesel; bore 3·94 in. (100 mm.), stroke 4·52 in. (115 mm.), capacity 330 cu. in. (5·406 litres); 108 b.h.p. (gross) at 2,500 r.p.m., 242 lb./ft. torque at 1,500 r.p.m.
TRANSMISSION: **Clutch,** hydraulically operated semi-centrifugal single dryplate 12 in. (304·8 mm.) dia., 141·4 sq. in. (913 sq. cm.) lining area; **gearbox,** four-speed synchromesh (ex first), ratios 6·482, 3·092, 1·686 and 1 to 1 forward, 8·007 to 1 reverse; **driveshaft,** two-piece open tubular with needle roller bearing universal joints and centre steady bearing; **rear axle,** Eaton electrically operated two-speed, ratios 6·14 and 8·54 to 1.
BRAKES: Hydraulic to all wheels with Clayton Dewandre vacuum servo; total lining area 688 sq. in. (4,378·7 sq. cm.).
TYRES: Standard 8·25-20 12-ply; alternative 9·00-20 12-ply, twins on bogie wheels.
WHEELBASE: 182 in. (4·62 m.).
WEIGHT: Approximate licensing weight l.w.b. chassis and standard Trader cab 3 tons 13¼ cwt. (3,721·2 kg.).
PRICE: In standard trim £1,780. Eaton two-speed axle £185 extra.

Test Results

ROUTE: Standard route in Kent and Surrey.
CONDITIONS: Mild and dry.
RUNNING WEIGHT: 14 tons 18 cwt. (15,189 kg.) plus crew of two.
PAYLOAD: 10 tons 6 cwt. (10,465 kg.).
FUEL CONSUMPTION: Over standard 15-mile out-and-back route 11·5 m.p.g. (4·07 km./litre) at 28 m.p.h. (44·8 k.p.h.) average speed.
GROSS TON/M.P.G.: 172·5 (62 tonnes/km./litre).
PAYLOAD TON/M.P.G.: 118·5 (42·6 tonnes/km./litre).
MAXIMUM GRADIENT CLIMBED: 1 in 6 (16·6 per cent).
TURNING CIRCLE: About 60 ft. (18·3 m.) wheeltrack.
ACCELERATION:
Averages of four runs through gears:
0-20 m.p.h. 15·8 sec.
0-30 m.p.h. 36 sec.;
in top gear:
10-20 m.p.h. 22 sec.
10-30 m.p.h. 58 sec.
BRAKING: Best distance from 30 m.p.h. on dry level tarmac 66 ft. (20·1 m.), equivalent to 14·8 ft. per sec. per sec. or 0·45 g. overall retardation. Don meter 55 per cent. Hand-brake alone, 20 per cent Don meter.
ESTIMATED TOP SPEED: 47-48 m.p.h. (77 k.p.h.).
OVERALL FUEL CONSUMPTION: For 65 miles hard driving, including stops and low-gear work in various tests, 9·63 m.p.g. (340 km. per 100 litres).

The basis of the conversions is the Thames Trader 7-ton chassis embodying the now well-known Ford 6D diesel or six-cylinder petrol engine, four-speed synchromesh gearbox and hypoid back axle. An Eaton two-speed axle is available optionally. A straight ladder-type chassis frame of 9 in. channel

(*Continued on page 7*)

* No. 466 in the MODERN TRANSPORT series of road tests.

What you gain on the swings...

PAINTED WAGONS roll along the summer roads of Britain. The fun of the fair is on the move. Loaded convoys are bringing bustling blaring life to surprised meadows. For a day, two days, merry-go-rounds and dodgem cars whizz among the daisies. Excited children jig with wonder. Then, quickly as they came, stalls and shies, caravans, dogs and people vanish. And are off on the road again.

THE SMALL WORLD OF SMITHS

Among those who live their life on wheels are the Smiths. A big family who travel together from Birmingham to Gloucester, from Hereford to Oxford, from Easter to October. Sam Smith, his wife and 14-year-old son are part of that small world.

On the fairground Sam runs 6 swingboats and 8 slot machines. On the road he drives a lorry with the family's 4 ton caravan in tow and all the swingboat gear, slot machines and a small generator on board. The lorry is no ordinary vehicle, as Sam will proudly tell you. "It's the best motor was ever made—in front of anything else today. That motor will go for ever and a day." The motor is a 1949 Austin 2 tonner.

SAM'S REMARKABLE VETERAN

Before Sam Smith bought it, his Austin worked hard for the General Electric Co. Ltd., Birmingham. "I've had it 4 years now and I haven't spent a bean on it. She stands out all winter too and when it's time to go I push the button and we're off. Never have to use the handle."

What does Mrs. Smith say? "The lorry? It's a real good one. Yesterday it flew up that hill by Camden—never even got warm. It was lovely!"

"Never bother me, hills don't," Sam agrees. "The lorry just keeps pulling all the way. It's a pleasure to go anywhere—we all go to the pictures in it. I wouldn't swop it for anything." He should know—he's been driving for 25 years now.

What about petrol consumption? "25 m.p.g. empty, 15 m.p.g. loaded." Look sceptical and he'll say, "I ain't kidding. It's definitely been a good lorry. It's done its job and done it well." What Sam Smith makes on the swings he doesn't lose on the roundabout with Austin!

The veterans of the future will be found in the present Austin range—widest commercial range in Britain today. ¼ to 2 ton vans, 2 to 7 ton trucks—tippers, prime movers, chassis units for any type of bodywork. LWB or SWB. N.C. or F.C. Petrol or diesel. All with 12 months' warranty and backed by B.M.C. Service—Britain's best service and parts organisation.

AUSTIN

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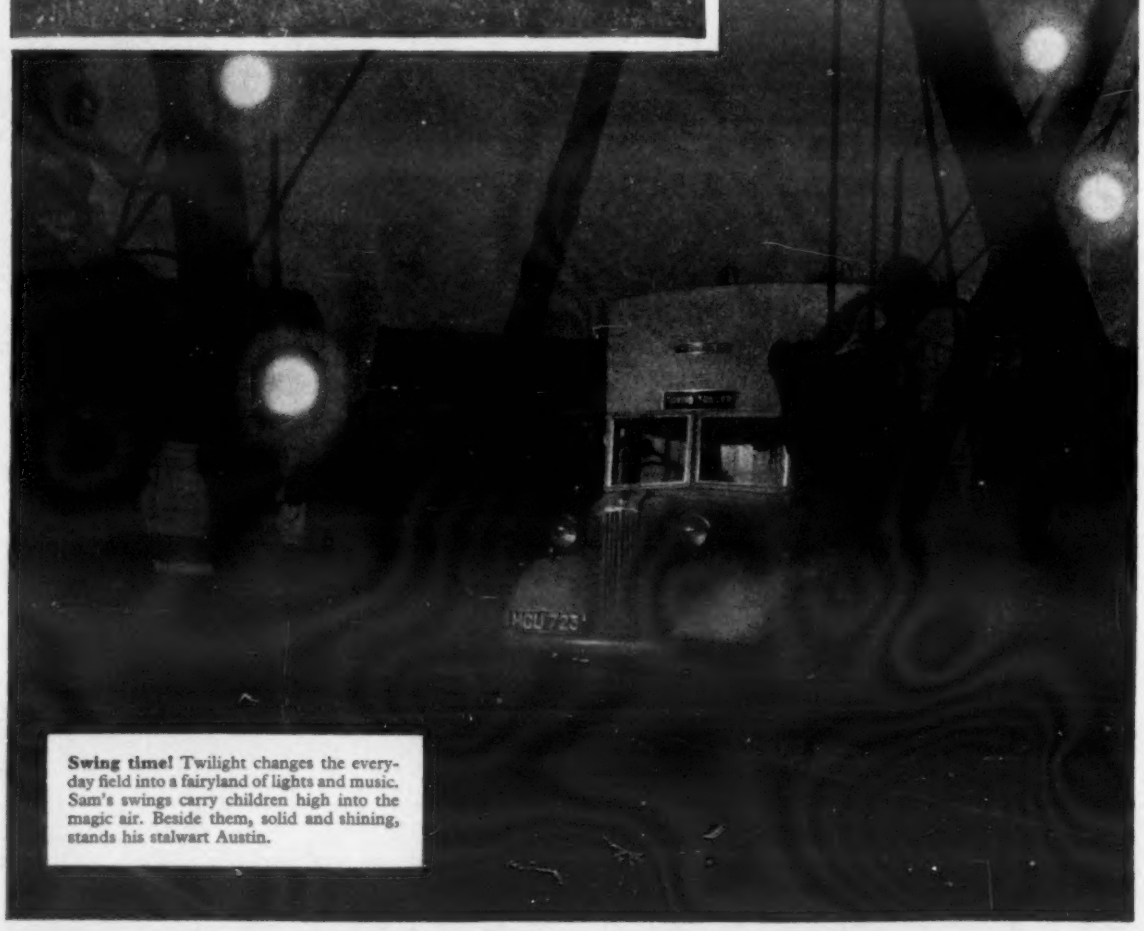
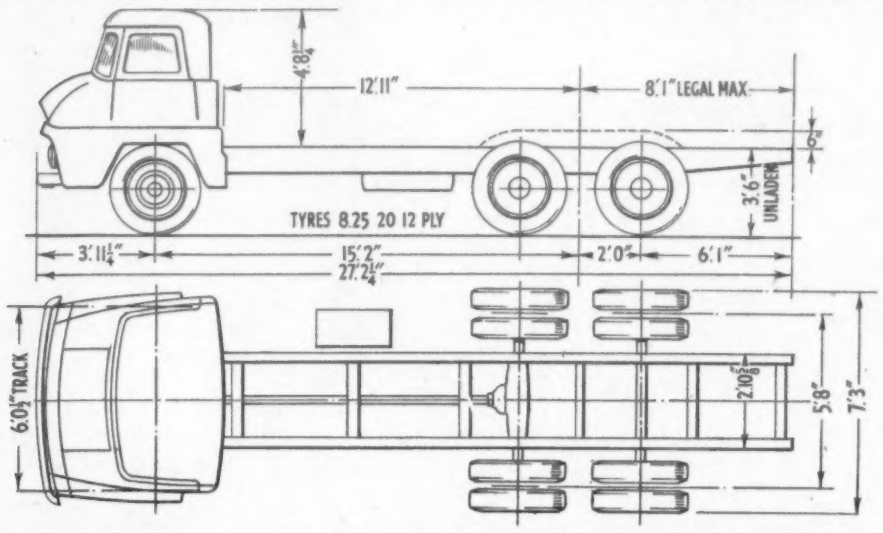
The fair goes up. Sam Smith's 10-year-old Austin 2 tonner carries a generator, all his gear, and tows his 4 ton caravan as well. It comes in handy too for erecting and dismantling the swingboats.



Swing time! Twilight changes the everyday field into a fairyland of lights and music. Sam's swings carry children high into the magic air. Beside them, solid and shining, stands his stalwart Austin.

section has a centre extension with reinforcement at top and bottom flanges. A four-spring balance-beam suspension, with beam carried in tapered roller bearings, has been selected for the bogie. Heavy-duty front springs are fitted and a Hydro-steer steering servo is offered as an optional extra. To the normal Trader vacuum servo-hydraulic brakes are added 15¼ in. by 4¼ in. brakes on the third axle. All are of the two-leading-shoe type, providing a total lining area of 688 sq. in. Hand-brake gear is modified to provide a mechanical link to all four bogie wheels. Standard gear ratio of the single-speed axle (or axles with double drive) is 7.2 to 1, while the optional Eaton 16500 series two-speed unit provides ratios of 6.14 and 8.54 to 1.

The test vehicle, with the longer (15 ft. 2 in.) wheelbase, was fitted with a 21-ft. long timber dropside body and had a ready-for-the-road tare of 4 tons 12 cwt. This leaves a margin of 10 tons 8 cwt. for payload and crew within the recommended gross weight of 15 tons. With a test load evenly distributed over the floor, a weighbridge check showed a total weight of 14 tons 18 cwt., indicating a payload of 10 tons 6 cwt., of which 3 tons 7 cwt. was borne by the front axle. Although disproportionate, this was still within the capacity of the standard 8.25-20 12-ply tyres inflated to 85 p.s.i. pressure.



Drawing giving principal dimensions of the l.w.b. Thames Trader chassis with County six-by-two conversion

Value of Two-Speed Axle

With less than 5½ litres pulling 15 tons, we did not anticipate sparkling performance and in the event were agreeably surprised at the manner in which the Ford 6D diesel dealt with its load. Although the engine does not develop its maximum torque (242 lb./ft. net) until 1,500 r.p.m., the output curve is substantially flat down to about 1,000 r.p.m. and a high governed speed of 2,500 r.p.m. gives a good range in each gear. Translated into figures on a fairly level piece of road, the vehicle reached 20 m.p.h. from rest in 15.8 sec. and 30 m.p.h. in 36 sec., each of these figures being the average of four runs, two in each direction. Best acceleration performance was achieved with the two-speed axle permanently in low ratio, going through the gears in the main gearbox. Using alternate axle and gearbox changes, it took a second or two longer to reach 30 m.p.h. and using high axle ratio only, a few seconds longer again.

In the low axle ratio the vehicle could be throttled down in top gear to about 10 m.p.h., from which speed there was slow but fairly smooth acceleration to 20 m.p.h. in an average of 22 sec. and to 30 m.p.h. in an average of 58 sec. Although there was no apparent advantage to be gained from using the two-speed axle in fast acceleration to normal traffic speed, its benefit was evident in the give and take of driving the fully loaded vehicle over our rather hilly route, both in accelerating to speeds above 30 m.p.h. and in keeping the vehicle going at its best up long gradients by using the split downward changes at road speeds corresponding to maximum engine torque. Very fast and positive downward axle changes were always possible.

The electrically operated axle gearchange gave very fast upward axle-ratio changes in first and second main gears—a great advantage in building up to optimum speed on long hills—but rather slower axle changes in third and top main gears, as is common. Fast changes from first to second particularly, but also from third to second in the main gearbox, would be easier for the short driver if height adjustment was provided for the otherwise very comfortable seat, permitting him to take up a more advantageous position above the gear-lever. On Bug Hill an easy start from rest was made in first gear (low axle) on 1 in 6, where high effort was required on the handbrake lever to hold the vehicle stationary, and a fairly comfortable start in first (high axle) on 1 in 7.

Light Handling

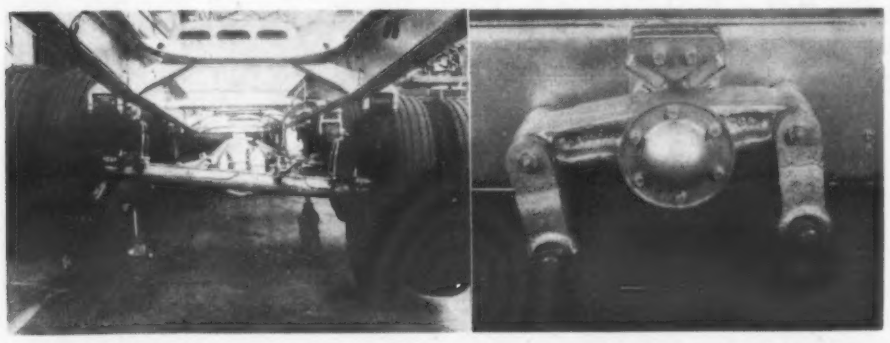
The features of the Thames forward-control cab, including large one-piece curved windscreen, three back windows, full-drop door windows and four-point flexible mounting are now well known. We were impressed by the exceptionally low noise level of the 6D engine from inside the cab, to which standard rubber floor mats and well-insulated engine cover contribute. Controls are generally well placed but, as with the gearlever, the steering wheel would be in more convenient and comfortable reach of the short driver if seat height was adjustable.

Handling was light considering the gross weight of the vehicle, helped materially in the case of the test vehicle by having the optional steering servo fitted. In view of the greater resistance of rigid six-wheelers to steering movements and the rather high ratio of 22.5 to 1 of the standard Thames steering gear, the additional cost of power steering appears well worth while, particularly for vehicles that will have much manoeuvring to do. Suspension of the Thames-County six-wheeler appeared well up to its job. When the vehicle was run up to its maximum speed of a recorded 52-53 m.p.h. on a suitable downgrade, swinging the steering from side to side produced none of the sense of wallowing that is sometimes apparent in medium-weight vehicles converted to a higher weight range.

Brake Performance

It is possible that we did not see the best that the brakes on this vehicle can do, for the addition of brakes to the trailing axle of similar size and type to those on the driving axle provides the reasonable specific lining area of over 45 sq. in. per ton of laden weight. However that may be, two heavy applications on the fast run already referred to produced a 45 per cent reading on the Don meter and locked the rear nearside wheels on each occasion. Some fade was evident in our customary check on Titsey Hill, where the vehicle was coasted down the easy slope at the top of the hill for 600 yd. or so while speed was held to about 20 m.p.h. on the pedal. A heavy brake application at the point where the gradient eases just above the church produced a Don meter reading of 30 per cent.

Fairly rapid recovery was evident when after running for about two miles at normal speed, 50 per cent was registered on the meter in a stop from 30 m.p.h. Normal cold-brake performance was checked in a series of stops made on dry level tarmac from 30 m.p.h., in which our chalk-firing magazine marked the position on the road of first pressure on the pedal. In these, the shortest distance achieved was 66 ft. and the longest 70 ft. and the Don meter recorded between 54 and 56 per cent. In these stops too there was some marking of the road by the nearside rear wheels but none apparently from the others, pointing to an imbalance which, if corrected, might result in rather better performance. Maximum effort on the handbrake alone from speeds around 20 m.p.h. produced meter readings of 20 per cent.



The trailing axle will sustain an 8½-in. deflection before lifting the driving wheels; right, detail of the County four-spring rocking-beam bogie suspension; the solid beam runs in tapered roller bearings and all rear spring eyes are rubber bushed

Light on Fuel

For the main fuel consumption check our usual 15-mile out-and-back route on A25, between Limpsfield Common and Riverhead, was used. In this the Ford did extremely well; although traffic was fairly light during the run, there were the usual checks in the villages on the route and two complete halts—one at traffic lights and one on the steepest part of the hill in Westerham, necessitating lengthy use of the lowest gears. The result worked out at 11.5 m.p.g.—a payload ton/m.p.g. figure of 118.5—at an average speed of 28 m.p.h. This seems a fair indication of what the vehicle is likely to do in average all-fully laden service, while in operations involving part-laden or empty running principally over open trunk roads, substantially better results could be anticipated.

At the other end of the scale, an indication of what might be expected in the worst type of operating conditions, such as in short-haul hilly site work, was given in our check of overall fuel consumption. For 65 miles of hard work, including the frequent stops and a great deal of full-power low-gear work in our various checks, this worked out at just over 9.6 m.p.g.

The County Commercial Cars conversions make a most useful addition to the Thames Trader range, providing workmanlike high-capacity vehicles at extremely attractive prices. The long-wheelbase diesel-engined six-by-two chassis and cab, for example, costs £1,780 (£135 less with petrol engine) and a fitted 21-ft. timber dropside body costs £210 10s. Knowing the ability to work of the 6D engine, we do not doubt that quite reasonable performance could be expected with the standard four-speed transmission, but 15 tons is about the limit that a 5½-litre engine can be expected to deal with on the road without becoming a nuisance to other traffic on every little incline. Most operators will find that £185 spent on the optional two-speed axle is money well invested for the greater flexibility of performance and possibly greater fuel economy it affords.

one engine
does all the work

Foden 20 ton gross chassis fitted with RANSOME & RAPIER 6 cu.yd. mixer with hydrostatic drive

Ready Mixed Concrete Ltd., one of the largest operators of mobile concrete vehicles in the world, have designed and patented in all countries hydraulic equipment for operating the mixer from the vehicle engine and gearbox. Fodens have supplied many of the fittings to make the job of converting to hydrostatic drive a simple and inexpensive one. Messrs. Ready Mixed Concrete Ltd. are steadily building up their fleet of Foden four and six wheel chassis for 4 to 6 cu. yd. mixers.

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- Simple positive drive with engine driven hydraulic pump used while in transit.
- Two hydraulic pumps, one engine driven and one gearbox driven, used for charging the mixer and discharging on site.

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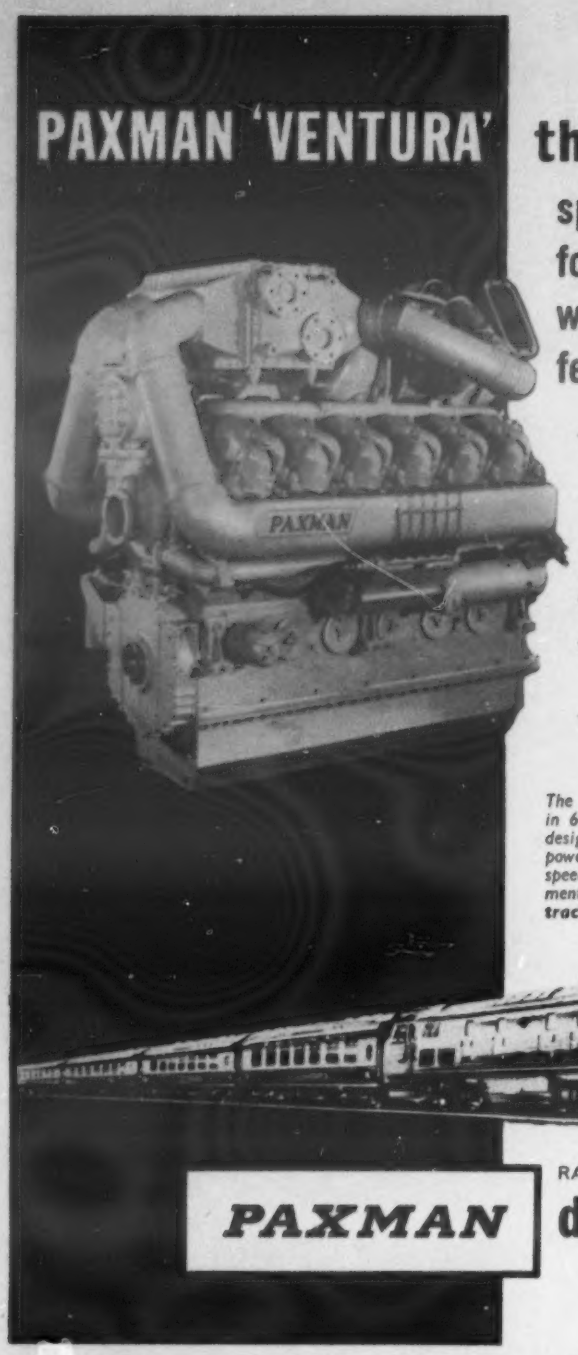
PAXMAN 'VENTURA' the only diesel specifically designed for rail-traction which has all these features



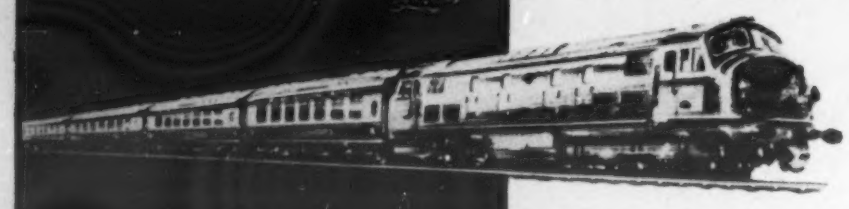
★ A combination of the best ever power-to-weight ratio and maximum accessibility for easy maintenance.

★ Extreme compactness.

★ Ratings from 500 to 1870 b.h.p. per unit.

★ British designed throughout.

The Paxman 'Ventura', which is available in 6, 12 and 16-cylinder sizes, has been designed specifically as an advance in diesel power for main-line 'Bo-bo','Co-co' and high speed diesel train sets with total requirements up to 4000 horsepower. It is the rail-traction diesel of the immediate future!



PAXMAN RAIL-TRACTION diesels 4-2300 h.p.

DAVEY, PAXMAN & CO. LTD., COLCHESTER, ENGLAND. *a member of the RUSTON Group*

PR2

NEWS FROM ALL QUARTERS

Stations Closing

Glendon and Rushton, and Hathern stations on the London Midland Region will be closed to passenger traffic from January 4, 1960. Also closing is Basford Vernon, near Nottingham.

Trent Coal Jetty Closed Down

The coaling jetty at Keadby, near Scunthorpe, on the River Trent, was closed by British Railways after the 750-ton collier *Continuity* left with 500 tons of South Yorkshire coal for Colchester gasworks on November 28. The 150-ft. jetty has been judged unsafe and its future is being considered by British Railways and the Ministry of Transport. The transfer of the trade to Goole will increase the price of South Yorkshire coal, it is reported.

More Station Loudspeakers

Loudspeakers will soon be operating on 42 additional London Transport Underground platforms for giving information to passengers. They will be used for passing emergency messages and explanations to passengers in the event of Underground breakdowns or delays occurring. It is intended that they should serve as an extension of the present system in which emergency messages are relayed from the control room to stations and displayed on notice boards thereat.

Bailey Bridge on Kingston By-Pass?

The possibility of easing traffic congestion on the Kingston by-pass by erecting a temporary Bailey bridge over the Tolworth intersection is to be considered by the Ministry of Transport and local authorities. If it were decided to conduct a temporary experiment with a Bailey bridge, it is stated, this would in no way prejudice the carrying out as soon as possible of the proposed comprehensive and permanent measures to ease traffic flow along the Kingston by-pass as a whole. However, these plans do not provide for any major improvement of the Tolworth junction.

Peripheral Distribution Depots Grow

At the last meeting of the London and South Eastern Regional Board for Industry, Mr. Barry Kay, regional controller of the Board of Trade, said there was evidence that the increase in traffic in London was forcing the distributive trades and service industries to consider the best means of circumventing this, and a tendency to establish depots at strategic points well away from London and on the periphery of the built-up area was getting stronger. The Board of Trade intended strictly to limit the expansion of industry in the Greater London area.

Gateshead By-Pass Work

High Street, Gateshead, is to be closed to traffic for six weeks from January 4, 1960, to facilitate the completion of the new £800,000 by-pass from Felling to the foot of the High Street. The closing of the street will allow work to be put in hand widening the railway bridge at the foot of High Street. Traffic entering Gateshead over the Tyne Bridge from Newcastle will pass along the partly completed by-pass, while traffic en route for Newcastle will proceed along Redheugh Road and West Street, Gateshead, to cross the Tyne by means of the Tyne Bridge or the adjoining High Level Bridge.

New Ferry By-Pass

Opened last week was the New Ferry by-pass on the Birmingham—Birkenhead trunk road A41. The new road runs east of the centre of New Ferry from the Birkenhead boundary and rejoins A41 at a roundabout nearly a mile to the south.

Record B.T.C. Advertising Receipts

Two new all-time records for advertising revenue were secured by British Transport advertising in the quarter ended September 30. British Railways revenue reached the all-time high of £243,532 and the provincial buses of the Tilling Group further increased their popularity to gross a record £98,740.

No Traffic Lights Here in Future

Halifax has made a bold decision—to abolish traffic lights from the town centre. When a revised traffic scheme is introduced in January nine sets of traffic lights in the town centre, controlling seven junctions, will be taken down and a system of one-way streets extended. There will be only one set of traffic lights remaining in the borough. Halifax is on the main A58 artery between Liverpool and Leeds.

Learned Society Must Pay Rates

Last week the Court of Appeal decided that the Institution of Mechanical Engineers was not formed for purposes of science exclusively and was not, therefore, entitled to rating exemption for its premises in Birdcage Walk, Westminster. The assessment was £6,000 gross, £4,977 rateable. Lord Justice Hodson said each case of this character had to be considered according to the terms of the charter involved. Leave to appeal to the House of Lords was granted.

Second Rome Underground Line

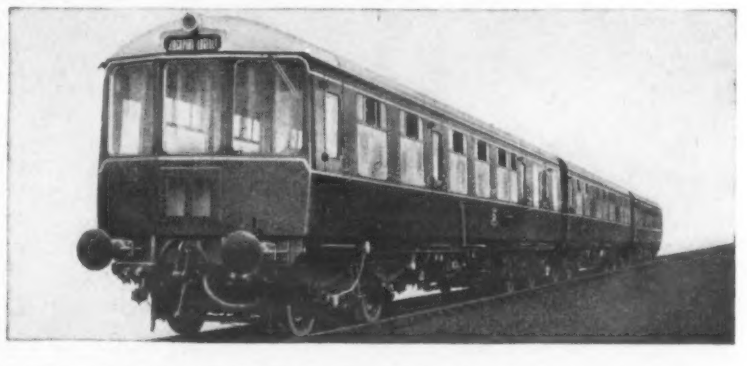
An Italian parliamentary committee has given its approval to a proposed Bill for the construction of a second underground railway line in Rome. The new line is planned to commence at Piazza del Risorgimento, near the Vatican City, and to run via Piazzale Flaminio, Stazione Termini (at which point it will meet the existing line) and Piazza San Giovanni to terminate at Osteria del Curato on the Via Tuscolana, with a branch leading to Torre Spaccata.

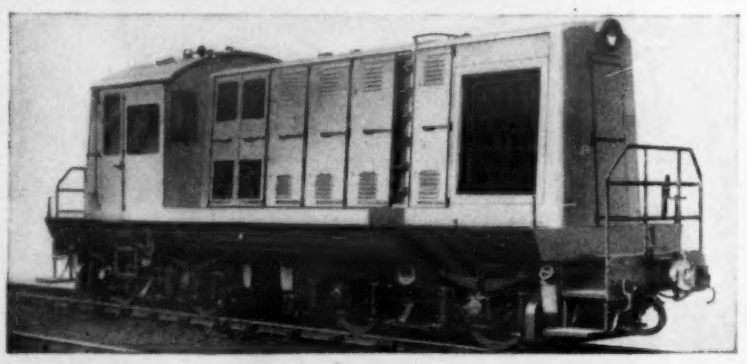
Motorway Breakdown Survey

Drivers using the London—Birmingham motorway during November faced odds of about 400 to one against breaking down, states the Automobile Association in an analysis of breakdowns dealt with by A.A. motorway patrols during the first month's operation on the M1. The A.A. (which travelled over 25,000 miles on M1) estimates that some 400,000 vehicles used the motorway between opening day on November 2 and the end of the month. In that time the A.A. received 989 calls for assistance from drivers. Wheel changes and punctures accounted for 112 of the 850 breakdowns actually attended to by A.A. patrols. Other causes (for all classes of vehicle) were: electrical 92, out of petrol or oil 90, petrol feed or pump 72, overheating 67—and stuck in the mud on the hard shoulder, 14. Tyres and fan belts were considered the most vulnerable single items.

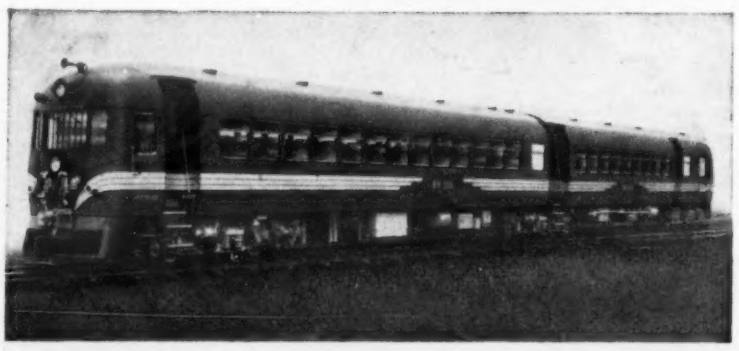
COMMONWEALTH RAILWAYS OF AUSTRALIA
955 H.P. Diesel-Electric Locomotive (10 Ton Axle Load)
In collaboration with Sulzer Bros. (London) Ltd and Crompton Parkinson Ltd.

BRITISH RAILWAYS
Three Unit Diesel Mechanical Railcars





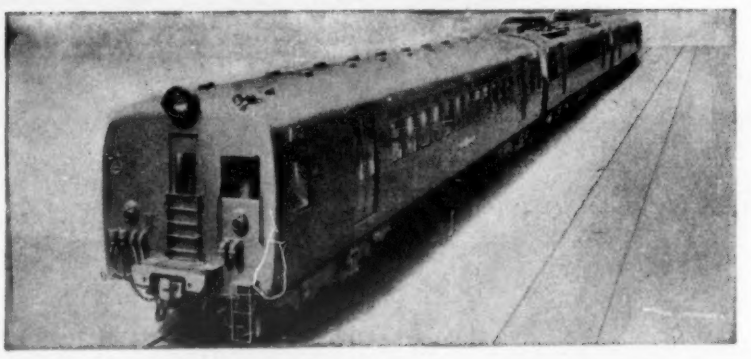
GHANA RAILWAYS
400 h.p. Diesel Electric Locomotive



NEW ZEALAND GOVERNMENT RAILWAYS
Twin Articulated Diesel Mechanical Railcars
In collaboration with The Drewry Car Co. Ltd.

BRITISH RAILWAYS
1,160 H.P. Diesel-Electric Locomotive
In collaboration with Sulzer Bros. (London) Ltd and Crompton Parkinson Ltd

SANTOS JUNDIAI RAILWAY, BRAZIL
3,000 Volts, 800 H.P. Three Car Train
In collaboration with The English Electric Co. Ltd.



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COMMERCIAL AVIATION

Another Commonwealth Pact

B.O.A.C. PLANS FOR BOEINGS

THE international overseas airlines of India, Great Britain and Australia reached agreement on December 4 to co-ordinate their operations in a drive to expand their share of the world's international air traffic. The agreement was reached in Bombay after discussions by the executive heads of the three airlines. Details have to be ratified by the airlines' boards and governments and, assuming ratification, the agreement will come into force on April 1, 1960. The statement announcing it pointed out that the airline network involved extended from London eastward to India, Australia, Hong Kong and Japan and westward from London to New York, and thus covered a very large part of the world's air transport systems. By joint planning of operations and co-ordination of reservations systems the three partners in the agreement will offer the travelling public an unrivalled airline service through the great travel centres of the world. Tickets of the three airlines will be freely interchangeable and each airline will sell the services of the others. Each would retain its own identity and individuality. Under the agreement each partner airline maintained its complete independence and its right to develop its own future and provision was made for the development of promotional services. Each airline would also continue to exercise its right to choose the best aircraft for its purposes in its own judgment. The executive heads believed that the agreement opened up the prospect of a whole new era of expansion and service to the public, bringing with it new career opportunities for airline staffs.

Sabena North Atlantic Freight Service

Sabena recently inaugurated a weekly cargo service on the North Atlantic route using Douglas DC6A aircraft specially adapted for the transport of cargo. The aircraft leaves Brussels for New York early on Thursdays and leaves New York on the return flight late that evening.

New Aer Lingus Route to France

From next June it will be possible to travel by air from Dublin to France and return for £13. Aer Lingus has announced this excursion fare for its new Dublin—Cherbourg service. This route, the inauguration of which is subject to Government approvals, will operate from the beginning of June to the end of September. Another possible development next year is a direct service between Shannon and London. This was indicated in a reply in the Dail by Mr. Childers, Minister for Transport and Power.

Boeings to Build Up B.O.A.C. Atlantic Service

A big increase in British transatlantic flights will commence when Boeing 707 jet aircraft start operating for the British Overseas Airways Corporation in April. It is planned to increase passenger-carrying capacity to the east coast of the United States by 40 per cent in the summer and 50 per cent in the winter of 1960 compared with this year. In mid-April, the 707s will start operating three return services between London and New York a week. By the third week of May they will be increased to a daily service and the build-up will continue until the peak summer season, with two return flights a day between London and New York in August. A weekly 707 service to Montreal and Toronto will also be increased to a daily service by mid-August. Boeing services are to be introduced, too, through New York to San Francisco, across the Pacific to Hong Kong and via Montreal to Detroit and Chicago. Services will be introduced between London and Los Angeles on the Polar route and another service will link the Middle East with the United States by way of London.

B.E.A. Viscounts to Isle of Man

Next summer British European Airways will use Viscounts exclusively on its Isle of Man services. Each will accommodate 63 passengers, twice the passenger load of the Pionairs with which many of the island's air services are at present operated. With the introduction of the all-Viscount schedules on July 1, a number of fare adjustments and reductions will operate. During July, August and early September, passengers travelling between the Isle of Man and Belfast, Birmingham, Liverpool and Manchester on Fridays, Sundays and Mondays, will benefit from a 5 per cent reduction in monthly fares. In addition, the validity of excursion tickets available on Tuesdays, Wednesdays and Thursdays will be extended from 15 to 23 days. At the same time, in an attempt to distribute traffic to and from the island more evenly through the week and to smooth out the Saturday peak, Saturday fares during the 10 weeks of the high season will be increased by 5 per cent. By postponing the introduction of summer fares until July 1, B.E.A. will offer holidaymakers flying to the Isle of Man in the second half of June, the equivalent of a 25 per cent reduction between Liverpool and the Isle of Man, a 23 per cent reduction in the Manchester—Isle of Man fare, and 15 per cent off the Belfast—Isle of Man fare.

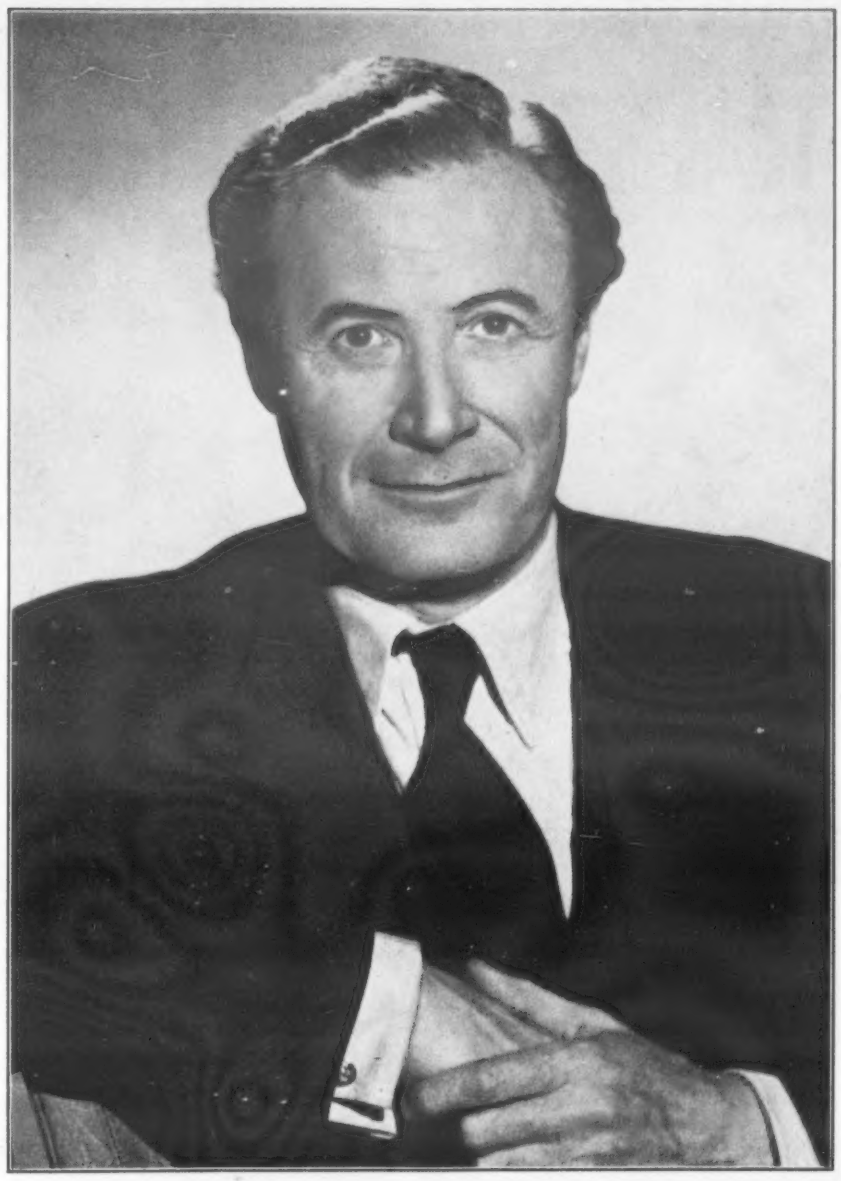
★

COMETS OVER EUROPE

(*Continued from page 3*)

turbojets with a static thrust of 10,500 lb. in each case. With a shorter wing and lower all-up weight the 4B cruises normally at 530 m.p.h., which is 30 m.p.h. higher than the 4. The importance of high utilisation is appreciated by all airlines and British European Airways is aiming at a daily average of 7 to 8 hr. when six of its seven are at work next July. If this is to be achieved the ground handling of the aircraft becomes highly important, as for that matter does the ability of the airport to dispose of the jet. Zurich, which already copes with Comets, is one which we have in mind so far as apron space is concerned. While it affects the aircraft operation less immediately as a general rule, delay in passenger processing can be troublesome as regards departures, while part of the good effect of a rapid flight can be offset by slow progress through customs and immigration. A good deal needs to be done at most airports to cope more adequately with the large loads. Design of buildings still leaves much to be desired—Zurich is one of the more recent examples of ideas that have not worked—and it is worth recording another potential source of confusion there. The new city air terminus at the Hauptbahnhof has been built with a good sense of arrangement but save for a couple of signs reading "Swissair," there is nothing to indicate the actual whereabouts of the air terminal to passengers.

MINISTER OF AVIATION



Duncan Sandys

Right Hon. DUNCAN SANDYS, P.C., M.P., M.A.

• • • • • •

Appointed Minister of Aviation in the new Government with responsibility not only for what has latterly been the purview of the Ministry of Transport and Civil Aviation but also for part of the work formerly carried out by the Ministry of Supply, Mr. Duncan Sandys faces a variety of urgent problems ranging from the licensing of air services through the respective roles of the airways corporations and the independents to long-term development plans for civil transport aircraft. Born in 1908 and educated at Eton and Magdalen College, Oxford, where he took an M.A. degree, he entered the Diplomatic Service in 1930 and served in the Foreign Office and subsequently the British Embassy in Berlin. In 1935, however, he entered politics as Conservative member for the Norwood division of Lambeth. Having joined the Territorials in the Royal Artillery in 1937, he went on active service after the outbreak of war in 1939 and was in Norway with the 1940 expeditionary force. Thereafter he served in Britain and attained the rank of lieutenant-colonel but, in 1941, he was injured in an accident and returned to civilian life. Mr. Sandys became Financial Secretary to the War Office in 1941 and two years later moved to the Ministry of Supply as Parliamentary Secretary. He became chairman of the War Cabinet Committee on Defence against German V weapons and continued as such after being appointed Minister of Works, with Cabinet rank, in 1944, a year in which he had also been made a Privy Councillor. He remained Minister until the dissolution of Parliament in 1945. Founding the European Movement in 1947, he was chairman of the international executive until 1950 and a member of the European Consultative Assembly in 1950-51. From 1947 to 1951 he served on the general advisory council of the B.B.C. Returned to Parliament in the general election of February, 1950, as member for Streatham, he retained the seat the following year and became Minister of Supply in the Conservative Government formed after the election. He was made Minister of Housing and Local Government in October, 1954, and Minister of Defence in January, 1957, being, in each office, responsible for important developments in legislation and policy. Thus he piloted the measure for steel denationalisation through the House, introduced the Rent Bill and, in 1957, was personally responsible for writing the White Paper on Defence.

IN PARLIAMENT

Shipping Conference Disappoints

CIVILIAN TRAFFIC CORPS

WHAT progress had been made since the inter-governmental shipping conference in Washington in June, MR. J. WOOLLAM asked in an adjournment debate on December 4. The Joint Parliamentary Secretary, MR. JOHN HAY, was not too optimistic in his reply. He recalled that flag discrimination was the *raison d'être* of the conference and its purpose was to try to agree on principles for dealing with this problem. It represented a rather new technique in the handling of these shipping problems, which had been the subject of discussions between Governments through the usual diplomatic channels throughout the post-war years, and although the conference rightly received a great deal of public attention, particularly in the United States, and not all of it favourable, in essence it was a continuation of diplomatic diplomacy in a rather novel way.

The value of the conference was that it enabled the Government to be genuinely frank about its interests and objects. Open diplomacy would not really serve this purpose. Talks of this nature must be kept confidential, he pleaded. Delegates at Washington agreed that they would recommend that informal arrangements for further consultation should be established, and all the governments concerned, including the United States, accepted this recommendation in principle. It was disappointing that finality had not yet been reached in establishing these informal arrangements. They were determined, however, to restrain other governments from discriminatory practices and to get our friends to help us to do so.

Dangerous Substances on the Move

MR. R. A. BUTLER, the Home Secretary, said that the chemical and road transport industries are willingly co-operating in preparing a scheme for the marking of vehicles carrying dangerous substances. His department had had two meetings with representatives of these industries and a detailed code of marking was now being drawn up. The Minister of Transport said that draft regulations controlling the road movement of radioactive materials should be published early next year and revised railway regulations were in hand.

Civilian Traffic Corps Plan Appeals

MR. N. FISHER asked the Home Secretary whether, in order to assist traffic control and release the Metropolitan Police for more important duties, he would consider the recruitment of a special corps for traffic duty in London. MR. R. A. BUTLER replied that he was advised that legislation would be necessary before civilians could be appointed to assist the police in their road traffic duties. He was giving the matter sympathetic and urgent consideration.

Statues in the Way

When MR. EMRYS HUGHES asked the Minister of Works whether he was aware that there was a number of statues which obstructed or impeded traffic in the centre of London and if he would set up a committee to advise him on the desirability of removal, LORD JOHN HOPE said he had had no representations but would consult the Minister of Transport about such of them as were his responsibility. Mr. Hughes explained that he had in mind statues of field-marshals on horses who were a greater danger to the public dead than when they were living. Lord John Hope admitted that he knew the definition of a horse as being dangerous at both ends and uncomfortable in the middle, but he did not think it applied to these statues.

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Forthcoming Events

December 12.—Railway Correspondence and Travel Society (Sussex and Kent). Paper by Mr. G. S. Tanner, "My Life on the Line." At Railway Hotel, Brighton. 7 p.m.

December 14.—Institute of Transport. Henry Spurrier Memorial Lecture by Mr. L. J. Dunnett, "Government and Roads and Road Transport." At 66 Portland Place, London, W.1. 5.45 p.m.

Institute of Transport (Sussex). Paper by Mr. J. H. Bustard, "Road Transport Afloat." At Arlington Hotel, Brighton. 6.15 p.m.

December 15.—Industrial Transport Association. Paper by Supt. H. W. Gilder, "The Functions of a Traffic Department in a Police Force." At Royal Society of Arts, John Adam Street, W.C.2. 6.30 p.m.

Institute of Transport (Midland). Paper by Mr. A. F. Hares, "Behind the Port Scene." At Engineering Centre, Stephenson Place, Birmingham, 2. 6.45 p.m.

Institution of Naval Architects. Paper by Mr. K. Maddocks, "Some Aspects of Marine Reactor Security." At Institute of Marine Engineers, 76 Mark Lane, E.C.3. 5.30 p.m.

Institution of Locomotive Engineers. Paper by Mr. W. L. Topham, "Methods of Reducing Flange Wear on Diesel and Electric Bogie Locomotives." At 1 Birdcage Walk, S.W.1. 5.30 p.m.

Institute of Transport (York G. and S.). Paper by Mr. J. W. Lawrence, "Some Aspects of Bus Operation." At Room 33 Railway H.Q. Offices, York. 7.15 p.m.

Institute of Transport (Portsmouth). Paper by Mr. R. I. H. Crosland Taylor, "Necessity is the Mother of Invention." At Chamber of Commerce and Shipping, Samman House, Bowlalley Lane, Hull. 7.30 p.m.

Institute of Transport (Portsmouth). Paper by Mr. R. I. H. Longman, "Organisation and Management in the Road Transport Industry." At the Chamber of Commerce, Portsmouth.

December 16.—Permanent Way Institution. Paper by Mr. D. R. James, "Tools and Equipment Past, Present and Future." At 222 Marylebone Road, N.W.1. 6.30 p.m.

Institute of Petroleum. Redwood Lecture, "Pipelines," and presentation of Redwood Medal to Mr. A. C. Hartley. At 61 New Cavendish Street, W.1. 5.30 p.m.

Railway Students Association. Paper by Mr. G. T. Owen, "The British Locomotive Industry." At London School of Economics, Houghton Street, W.C.2. 6.15 p.m.

December 17.—B.R. (Western) London Lecture and Debating Society. Questions on Railway Operation and Administration. Questionmaster Mr. H. G. Bowles. At H.Q. Staff Dining Club, Bishops Bridge Road, W.2. 5.45 p.m.

Diesel Engineers and Users Association. Paper by Mr. W. P. Mansfield, "The Invention of B.I.C.E.R.A." At Institute of Marine Engineers, 76 Mark Lane, E.C.3. 2.30 p.m.

Institute of Road Transport Engineers. Paper by Mr. E. B. H. Elsbury, "Selection, Specification and Design of a Commercial Vehicle." At Royal Society of Arts, John Adam Street, W.C.2. 6.30 p.m.

Institute of Road Transport Engineers (Yorkshire). Paper by Mr. D. Kaberry, "Diesel Power Units." At Great Northern Hotel, Leeds. 7.30 p.m.

Institute of Transport (East Midlands). Paper by Mr. E. Merrill, "British Transport Commission Public Relations." At the City Transport Offices, Leicester. 1 p.m.

Institute of Transport (Northern Ireland). Paper by Mr. G. Fitzgerald, "The Economics of the Peak in Air Transport." At 21 Linenhall Street, Belfast. 6 p.m.

December 18.—Institute of Navigation. Films. At Royal Geographical Society, 1 Kensington Gore, S.W.7. 6.15 p.m.

Institute of Transport (Tees-side). Debate: "That the unrestricted growth of private transport, other than for hire or reward, for goods and passengers, is undesirable for the community at large." At Cleveland Scientific and Technical Institution, Middlesbrough. 6.30 p.m.

December 19.—Railway Correspondence and Travel Society (S. of England). Paper by Mr. K. G. Carr, "The Gosport Extension of the L.S.W.R." At Junction Hotel, Eastleigh. 6.30 p.m.

Railway Correspondence and Travel Society. Paper by Mr. S. O. Ell, "The Contribution of Locomotive Testing to Dieselisation on the Western Region." At Railway Clearing House, Eversholt Street, N.W.1. 7.15 p.m.

B.U.T. RAIL TRACTION DIESELS
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N.E. REGION ECONOMIES

Hornsea and Withernsea Branches

IT is announced by the North Eastern Region that because of the urgent need to effect immediate economies in the general public interest, the following stations on the Hull—Hornsea and Hull—Withernsea branches are to be converted into unstaffed halts: Sutton-on-Hull, Botanic Gardens, Hedon, Swine, Stepney, Ryehill and Burstwick, Ellerby, Wilmington, Keyingham, Whitedale, Southcoates, Ottringham, Sigglesthorne, Marfleet and Patrington. The Transport Users' Consultative Committee for the Yorkshire Area has agreed these arrangements but will consider any reasonable representations which might be made for the restoration of facilities at any of the stations concerned. Such representations should be made in writing to the secretary of the Transport Users' Consultative Committee for the Yorkshire Area, Toft Green Chambers, York.

The changeover to unstaffed halts is to take place on Monday, January 4, 1960, and on the same date Ellerby goods station will also be converted to a public delivery siding for freight traffic. Conductor-guards on the trains, equipped with Setright Register roll ticket machines, will issue tickets for all stations Hull to Hornsea inclusive and Hull to Withernsea inclusive to passengers joining at the unstaffed halts. On certain mornings during the busy summer period, staff will be provided at Botanic Gardens, Stepney, Southcoats and Marfleet stations to issue tickets.

Forwarded and received parcels traffic and small consignments of freight traffic will continue to be collected and delivered by British Railways road motors. Parcels by passenger train may still be handed in at or collected from Marfleet, Patrington

(*Continued at foot of next column*)

CAMBRIAN RAILWAYS INSTITUTE

Golden Jubilee Celebration

THE golden jubilee of the Cambrian Railways Institute was celebrated on November 23 by the holding of a banquet at the Wynnstay Hotel, Oswestry. Mr. O. Veltom, district traffic superintendent, Oswestry, chairman of the Oswestry branch, W.R. Staff Association, presided. Mr. R. F. Hanks, chairman of the Western Area Board of the British Transport Commission, proposed the toast, "The Mayor and Borough of Oswestry." This was responded to by Councillor A. A. De Vere Beauclerk, mayor of Oswestry.

Mr. J. R. Hammond, general manager, Western Region, and president of the British Railways Staff Association, Western Region, gave the toast to the Cambrian Railways Institute, which was responded to by Mr. F. A. Peters, chairman of the Staff Association, Central Wales Area Council and treasurer of the Oswestry branch. "Our Guests" was proposed by Mr. E. Johnson, secretary of the branch, and replied to by Mr. R. A. Smeddle, chief mechanical and electrical engineer, Western Region.

Among other guests present were Mr. M. G. R. Smith, chief civil engineer, Mr. S. G. Ward, regional establishment and staff officer, Mr. W. R. Stevens, divisional traffic manager, Wales, and Mr. C. J. Rider, public relations and publicity officer, Western Region.

Golden jubilee dinner at Oswestry of the Cambrian Railways Institute

(*Continued from previous column*)

and Sutton-on-Hull, but in the case of the other unstaffed halts, parcels will be collected from and/or delivered to sender's or consignee's premises on request to Hull Paragon, Patrington, Hornsea Bridge or Hedon stations. There will be no change in the present arrangements for dealing with full load freight traffic, except at Ellerby.

Pressed Steel
help modernise railways at home and abroad

Pressed Steel Company are engaged in the quantity production of Diesel Railcars for the British Transport Commission. These coaches are part of the railway modernisation programme for British Railways, and the order is a tribute to Pressed Steel's outstanding record. In the last eight years Pressed Steel have supplied 80,000 new wagons and more than 800 units of coaching stock. They have produced a wide variety of wagons for different gauges for railways at home and overseas.

The Diesel Multiple Units from Pressed Steel are intended for use on the London Suburban Services from Paddington and in the West of England.

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BUS MILEAGE ECONOMY

Combined with Better Service

WARRINGTON SCHEME BEGINS DECEMBER 27

NOTEWORTHY as an example of what can be done by a bus undertaking in an endeavour to prune mileage without harming facilities —indeed with some remarkable improvements— is the reorganisation scheme affecting certain Warrington Corporation Transport routes which comes into operation on December 27, and which was approved by the North Western Traffic Commissioners with only three minor amendments. The scheme, says Mr. N. McDonald, general manager, will save the undertaking £24,000 a year; it is not claimed it will solve all the problems of the undertaking. Nevertheless it seems to us that the direct routeing of certain hitherto roundabout facilities but some of the Warrington services were particularly circuitous and even when they arrived at a housing estate they went all round it instead of through it. Improvement will be made in this respect at Bewsey, Longford, Orford, Poplars and Westy after December 27.

The present Service 1 runs from Dallam to the town centre by an inevitably somewhat roundabout route and thence to Poplars Estate by a route with two big kinks in it, following Marsh House Lane to Padgate and through a rather dead area northward. In future, under the number 2, this service will run from Dallam by the present route and from the corner of Marsh House Lane

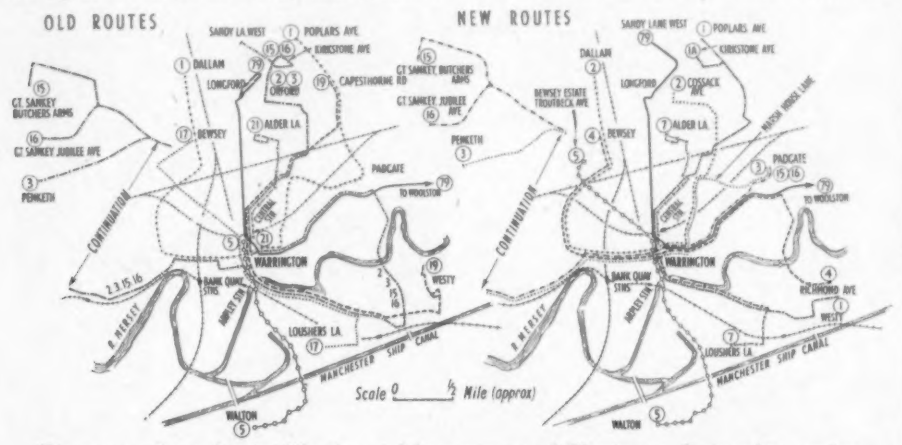

Diagram to show the simplification and improvement of Warrington Corporation services

will not only reduce fares but should encourage an additional flow of traffic.

The scheme for the re-routeing of services has been conceived against the background of the financial position of the undertaking. The accounts for the year ended March 31, 1959, show no deficit, but if the full contribution of £28,000 had been made to the renewals fund instead of the actual contribution of £22,260 then the deficiency for the year would have been £5,740. That was the real commercial result of the year's working. This was despite a general increase in fares from June 19, 1958, and despite economies made in the internal working of the department, which themselves saved some £10,000 in the year.

Traffic Fall

The reduction in the number of passengers carried, which has been a feature since 1950, continued, and in 1958-59 6.43 per cent fewer passengers were carried than in the previous year, representing a total reduction of 30.1 per cent when compared with the peak year of 1950. This is the largest single factor contributing to the department's financial difficulties. Whilst a reduction in the number of passengers carried is a feature of the industry nationally, the falling trend has been accentuated in Warrington due to the closure of the various military establishments in and around the town.

Orthodox ways of meeting such a situation are either to increase fares or so reduce the frequency of operation of the present services as will throw up a saving in mileage operated equivalent to the amount of the deficit. It is felt that neither is an attractive solution. The general level of fares was increased as recently as June, 1958, and it is doubtful if a further increase would provide a satisfactory answer. In any case, it is considered that all will go directly northwards to Cossack Avenue, Orford. The Poplars Estate service (1) will make a direct run to the Central Station and will then go south-eastward to Westy. The group of routes which formerly ran from Great Sankey and Penketh, serving different densities of population with the same frequency and running south-easterly from the centre in a great loop, coming back past the Central Station and north-easterly and north to Orford (2, 3, 15, 16), now will run west-east through the centre to Padgate, directly in the case of 15 and 16 and via Marsh House Lane in the case of 3. The south-east and easterly loop is broken up and replaced by 4, which goes down to Richmond Avenue, Westy, and on the north-west supplements the new 2 as far as Bewsey.

Improved Layout

The former 19, between Poplars and Westy, becomes redundant. The short services to Walton (5) and Alder Lane (21) are regrouped to give more economical headways by splitting up 17, Loushers Lane and Bewsey; service 5 will work Walton—Bewsey and 7 Loushers Lane—Alder Lane. The Bewsey Estate route has been improved in alignment.

Although they are not all shown on the maps, because only one (i.e. Service 5) was the subject of an application, the department, in conjunction with joint operators, runs six services from various points on the Cheshire side which converge at Wilderspool Bridge and follow a common route between that point and Central Station. Whilst there is considerable merit in isolating these services from others because of the interruptions of the swing bridges, excess mileage between Wilderspool Bridge and Central Station is to be corrected. Finally, Service 79, operated jointly with Lancashire United from Woolston, is being improved in the northern suburbs and in going on from Longford into Sandy Lane covers an extension previously mooted for the circuitous Penketh—Orford group of routes. The people will have better cross-town facilities from the reorganisation, more appropriate headways and over a dozen reduced fares, with only one or two increases which arise from the mechanics of the fare table. In addition the undertaking should be in a strengthened financial position as a result of the changes. The number of sections of road to be left unserved is considerable, but in practice all the residents will still be close to bus facilities.

A Warrington Corporation Foden double-decker on Route 3 traverses the narrow and crowded town centre; right, a Leyland on the present Route 17

other possible measures should first be tried. The other way of effecting a saving by reducing frequencies on the present routes might defeat its own end. It is a feature of the routes as at present operated in Warrington that two of them carry 70 per cent of the total passengers. To achieve a substantial degree of economy, it would be these two routes which would have to bear the greatest reductions, but certain sections of the routes are the department's biggest revenue earners.

Mileage Saved

Instead, Mr. McDonald put forward a scheme for saving 330,000 miles a year by reorganising the routes. The principle underlying the new routes is that of direct operation from point to point so far as available roads will permit. The aim is to strike into the centre of an area of population by providing a good frequency on the main roads rather than to dissipate the department's strength by attempting to provide devious services, often following an indirect route at an indifferent frequency. There will, under the new scheme, be more separate routes. At present some routes are so inter-related that it is not possible to adjust the frequency of service to suit the traffic offering without having repercussions in another part of the town where no adjustment is necessary.

Route Changes

Geographical accident has played its part in the past development of public service in Warrington. The south-west part of the area has no resident population, the greater proportion of whom are north of the town centre. This arises from the windings of the River Mersey through the town and the later adoption of the line of the Manchester Ship Canal as the borough and county (Lancashire-Cheshire) boundary. The evolution of hairpin-shaped routes was thus not a matter for surprise,

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NEW SEVERN BRIDGE

Work Started

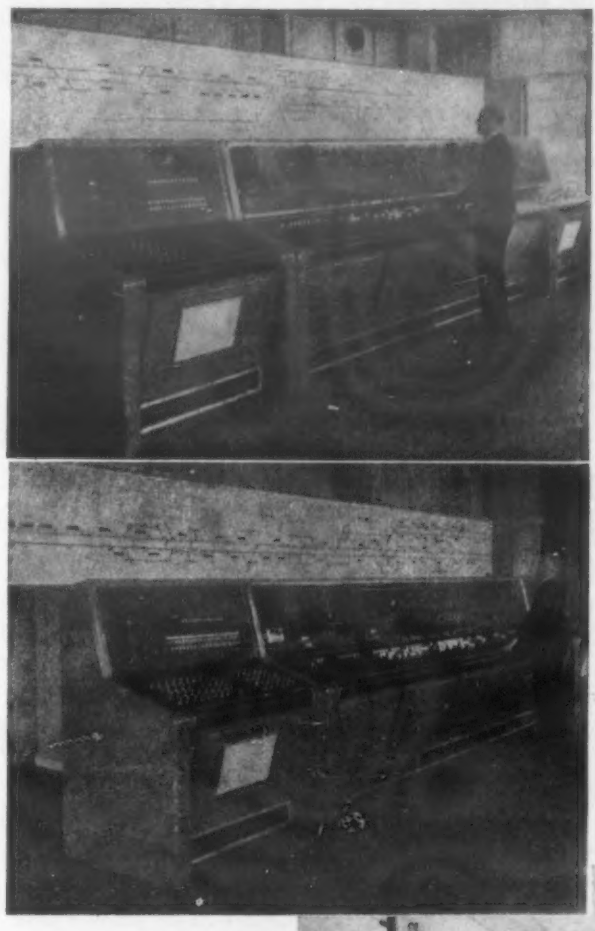
THE old Telford bridge over the Severn at The Haw, Gloucestershire, demolished following a collision involving a power-driven barge last year, is being replaced. Work has now started on a new bridge to carry the Cheltenham—Ledbury Road (B4213) over the river at a point just downstream of the old bridge site. Towards the cost, estimated at £190,000, the Minister of Transport, Mr. Ernest Marples, has made a grant of £114,000 to Gloucestershire County Council.

The new bridge will be of welded steel with a composite reinforced concrete deck, carrying a 24-ft. carriageway and two 6-ft. footpaths. The Royal Fine Art Commission has approved the design, which was executed by the Gloucestershire county surveyor, Mr. R. A. Downs. The work is being carried out by Tarslag, Limited, of Wolverhampton. While construction is in progress, traffic is using a temporary Bailey bridge across the river.

Co-operating in the Crewe—Manchester Electrification,

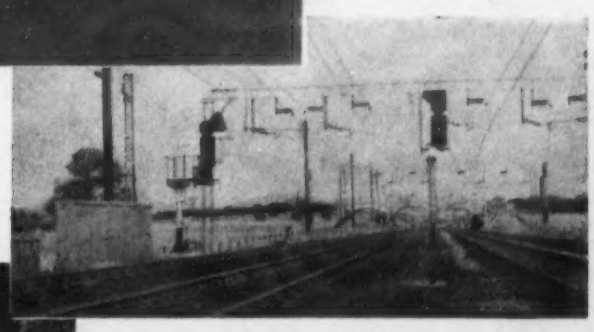
WESTINGHOUSE

SIGNALLING on the SANDBACH—WILMSLOW Control Area of London Midland Region, brought into operation July 1959, includes the resignalling of the main lines from Sydney Bridge, Crewe, to London Road and Oxford Road, Manchester, with a route-setting relay interlocking system with control desks, illuminated diagrams, electro-pneumatically operated points and 'Westronic' remote control.



TOP—Sandbach O.C.S. Control Desk. 64 routes operating in a distance of 11 miles.

LOWER—Wilmslow O.C.S. Control Desk operating 74 routes in a distance of 11 route miles.



Relay Room, Sandbach. Note miniature type relays.

A typical Signal location.

The Westinghouse Signalling on the STYAL LINE brought into operation in July 1959, included 'Westronic' Remote Control, and 83 track circuits immune to 50 cycle A.C. Traction supply over 9½ route miles.

Signalling supplied and installed by:
WESTINGHOUSE BRAKE AND SIGNAL Co. Ltd.
82 York Way, King's Cross, London, N.1

Improvement . . .

From the JANUARY 2, 1960 issue use of a highly finished paper will improve the readability of MODERN TRANSPORT and enhance the clarity of illustrations. This newspaper will continue to provide an unparalleled world-wide news service dealing with all forms of transport.

Price Alteration . . .

Owing to increased costs incurred during the past eighteen months it has become necessary to alter the price of the weekly issues to 1s. The annual subscription rate becomes 47s. 6d., post free; this is still less than 1s. a week.

MODERN TRANSPORT
"THE VOICE OF THE TRANSPORT WORLD"

NEW-TYPE STOVING FINISH

Bergercron One-Coat Acrylic Enamel

POTENTIAL advantage in some departments of the transport industry might well result from a new development of Lewis Berger (Great Britain), Limited, which the company describes as "a major technical breakthrough" in the paint or surface coatings industry. The development is a new one-coat stoving enamel, named Bergercron, based on a new range of acrylic resins, which is claimed to be harder yet more flexible than any other on the market. Other attributes are high gloss, depth of finish and smooth appearance and resistance to heavy impacts, acids, stains, corrosion and the effects of extreme temperatures and humidity.

Modifying Ingredients

The principal achievement of the latest Berger advance is in the development of techniques and essential modifying ingredients permitting the baking of acrylic resins, which are already widely used in acrylic plastics, into a hard insoluble infusible coating. The process used in producing Bergercron is covered by patents held by the American Pittsburgh Plate Glass Company, of which the sole British licensee is Styrene Co-Polymer, Limited, a company owned by three equal partners, Shell Chemicals, Limited, Pinchin Johnson and Associates, Limited, and Lewis Berger (Great Britain), Limited. The Berger company is exclusive licensee in Australia, New Zealand and South Africa and sub-licensee of Styrene Co-Polymer in Britain.

Bergercron enamels can be applied by any of the conventional methods and unlike current stoving finishes, can be applied directly to most metals in common use without primer or undercoat. Moreover, they cure at very high temperatures, permitting accelerated stoving processes. The possible savings in capital equipment and production costs are obvious. Although initial application is likely to be in the domestic appliance field, other industries, including transport, can be expected quickly to exploit the unique properties of this new coating material.

LETTERS TO THE EDITOR

Selection of Railway Staff

SIR,—According to the report in your November 7 issue, Mr. H. C. Johnson, in his recent presidential address to the Railway Students' Association, said that there is a serious shortage of promising men in the 35-50 age group. To the many keen railwaymen in that group still looking for promotion, such comment is, to say the least, discouraging. It seems to suggest that any aspirations by those who are not, or were not, traffic apprentices, are likely to be frustrated, not by hope deferred, but by ambition being killed. I hope such a negative view is not really intended.

To overcome this shortage, I would suggest action on the following basis: (1) Find out what has happened to those who, since the war, achieved an interview following the written part of the traffic apprenticeship examination, but were not appointed. The "runners-up," if they have shown any progress or capabilities since then, could perhaps be looked at again by competitive means and given some encouragement by special consideration for promotion to more senior positions as they arise. (2) Ask departmental officers to name those in their offices considered worthy of promotion, put some or all of them through competitive interview, then send those selected to one or more of the railway training colleges, but couple with the latter the special wartime selection methods for officers to measure the qualities of leadership, inspiration and initiative.

There must be a very large number of railway staff in the 35 to 50 age group. I cannot believe that all are so ill-equipped, mentally, physically or by experience as to be unable to rise and grasp the opportunity of worthwhile promotion if it were offered by these means. Obviously we cannot all be captains, but many in the thirties to fifties would welcome the chance to prove they can be good first mates.—Yours faithfully,

K. J. LEE, A.M.Inst.T.

39 Lord Roberts Avenue, Leigh-on-Sea, Essex.

Hope for the G.C. Line

SIR,—After the spate of rumours concerning passenger train services on the ex-Great Central main line, it is pleasing to read in so authoritative a journal as MODERN TRANSPORT, that orders have been placed for diesel railcars for use on local services between Nottingham and Leicester. The modernisation plan has at last reached this Cinderella of routes. — Yours faithfully,

R. W. SHEPPARD.

15 Girton Road, Sherwood.

The Feltham Fund

SIR,—Readers will no doubt be pleased to hear that the Feltham Fund has achieved its main goal—a Feltham is to be preserved. It will not, however, be going to the Tramway Museum Society's ground at Crich, but to the British Transport Commission's collection of historical relics at Clapham.

The change of destination was made because of requests from the B.T.C., and at the suggestion of some subscribers a circular was sent to all who had contributed, asking which they would prefer; an overwhelming majority wished the car to go to Clapham. The car arrived in London on Thursday, December 3, and will eventually be restored and repainted in L.T.E. livery as 2099. We are contributing to the cost of restoration, helped by a generous donation from the London Transport Executive which has also offered technical advice.

On behalf of the Feltham Fund, I should like to thank you and your readers for the help you have given the Fund both in publicity and donations which in no small way contributed to our success.—Yours faithfully,

R. ATKINSON,
The Feltham Fund.

25 Kempshott Road, S.W.16.

WARERITE 1960

New Range of 16 Patterns

YET another design lead in the field of laminated plastics is claimed by Bakelite, Limited, by the introduction of Warerite 1960, a new range of 16 patterns which gives a wider choice of scale and a less formal more abstract type of design. The new range follows the lead gained by Bakelite two years ago, when Warerite Architectural patterns were introduced. At that time they were a completely new design conception and were the first complete break with tradition in laminated plastics in that they were bolder and larger in scale than any previously available.

Warerite 1960 further exploits the wide aesthetic potentialities of a material which has long been accepted as a sound functional and durable surfacing. Whereas, in the past, the use of laminated plastics has largely been confined to working surfaces, the designer is now offered a proved practical material of great durability in a range of patterns that will harmonise with literally any type of surroundings.

Most of the new designs are available as veneers in sheets 9 ft. or 8 ft. by 4 ft. at prices ranging from 4s. to 5s. per sq. ft. They are also available already press-bonded to suitable materials such as plywood, blockboard and so on.

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TENDERS INVITED

THE following items are extracted from the Board of Trade Special Register Service of information. Inquiries should be addressed, quoting reference number where given, to the Export Services Branch, Board of Trade, Lacon House, Theobalds Road, London, W.C.1.

December 29—Ceylon.—Forest Department for five diesel-engined LORRIES. Specifications and tender forms from the Conservator of Forests, Kew Road, Colombo, 2, price Rs. 250.

December 30—Iraq.—Ministry of Defence for 11 petrol-engined 1-cu. yd. hydraulic TRACTOR SHOVELS and eight petrol-hydraulic TRACTOR-MOUNTED CRANES with 15-ft. lift. Tenders to the Directorate of Contracts and Purchases, Ministry of Defence, Baghdad. (ESB/28391/59.)

January 7—Peru.—Callao Port Authority for the supply and erection of TRANSPORTERS, DIESEL-ELECTRIC GENERATORS and MECHANICAL EQUIPMENT for the handling of bulk mineral shipments. Specifications and conditions from Division de Ingenieria Portuaria, Nuevo Edificio Administrativo, Autoridad Portuaria, Callao, against a deposit of 5,000 soles.

January 8—Union of South Africa.—Transvaal Provincial Administration for three 1,200 gal. mobile WATER SPRINKLERS. Tenders to the Chairman, Transvaal Provincial Tender Board, P.O. Box 1040, Pretoria. (ESB/28605/59.)

January 12—Federation of Rhodesia and Nyasaland.—Rhodesian Railways for two 50-ton capacity railway travelling BREAKDOWN CRANES, steam or diesel powered. Tenders to the Secretary, Rhodesia Railways Tender Board, P.O. Box 1577, Bulawayo. (ESB/25600/59.)

January 12—Australia.—Queensland Government Railways for 200 20-ton HOPPER BALLAST WAGONS class VTX. Tenders to the Secretary, Commissioner for Railways, Adelaide Street, Brisbane, Queensland. (ESB/28193/59.)

January 14—Australia.—Queensland Government Railways for two DIESEL-MECHANICAL LOCOMOTIVES, 2-6-0 wheel arrangement suitable for 3 ft. 6 in. gauge. Tenders to the Secretary, Commissioner for Railways, Adelaide Street, Brisbane, Queensland. (ESB/28127/59.)

Export Opportunity—Union of South Africa.—Robertson and Moss Africa, Limited, P.O. Box 234, Johannesburg, wants to represent United Kingdom firms manufacturing engineering products, including LUBRICATION, MATERIALS-HANDLING, AIR-CONDITIONING, FUEL-INJECTION and ROAD-MAKING EQUIPMENT and TYRES and TUBES. (ESB/27514/59.)

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FINANCIAL RESULTS

NOTES on the trading results, dividends and financial provisions of companies associated with the transport industry are contained in this feature, together with details of share issues, acquisitions and company formations or reorganisations.

J. Brockhouse

Net profit of J. Brockhouse and Co., Limited, and subsidiaries, in the year ended September 30, 1959, was £385,495 (£365,105) after depreciation and tax. Ordinary dividend is 10 per cent (8½ per cent).

East Kent Road Car

Dividend on the ordinary stock of the East Kent Road Car Co., Limited, for the year ended September 30, 1959, will be 8½ per cent. Net profit was £136,082 (£79,428) after tax and depreciation.

Dennis Brothers

Dennis Brothers, Limited, showed a net profit for year ended September 30, 1959, £69,010 (£66,736) after tax £11,960 (£85,360) and dividend 12½ per cent (10 per cent). Mr. D. J. Grimes, chairman, says at end of year under review orders showed a substantial increase in number and value.

Tarmac (Southern)

Crow Catchpole and Co., Limited, became a wholly-owned subsidiary of Tarmac, Limited, of Wolverhampton, in August. Reorganisation of Tarmac Group arrangements in the south is proceeding and as a first step the name of the above company has been changed to Tarmac (Southern), Limited.

British Vacuum Cleaner and Engineering

The British Vacuum Cleaner and Engineering Co., Limited, proposes to change its name to Goblin (B.V.C.), Limited. The most important parts of the business now are Goblin vacuum cleaners and other domestic electrical appliances, and B.V.C. industrial portable vacuum cleaners. The proposed new name, incorporating both Goblin and B.V.C., would assist the company in its relations with its customers and suppliers.

Dorman Long

Dorman, Long and Co., Limited, has acquired a controlling interest in T. A. Holdings, Limited, a private United Kingdom company with an issued share capital of £108,869 which has two overseas subsidiary companies—Amalgamated Engineering Co., Limited, and Amalgamated Engineering Co. (Ghana), Limited. Amalgamated Engineering is registered and carries on business as general engineers, steel fabricators and tank makers in Nigeria. Amalgamated Engineering Co. (Ghana) is registered in Ghana and carries on similar activities there. Dorman Long will provide the finance and technical aid necessary to expand the activities of the two West African companies.

OFFICIAL NOTICE

LEICESTER CITY TRANSPORT

APPOINTMENT OF
TRAFFIC SUPERINTENDENT

APPLICATIONS are invited for the position of Traffic Superintendent in A.P.T. 111 (£880 rising to £1,065).

Applicants should be under 45 years of age and experienced in the administration of the traffic section of a passenger transport undertaking, including the preparation of schedules and duty rotations in accordance with the provisions of the law and national agreements; also in the organisation and control of traffic staff.

The position is subject to the provisions of the Local Government Superannuation Acts.

Applications endorsed "Traffic Superintendent" and giving names of two referees must be delivered to me not later than Monday, January 4, 1960.

Abbey Park Road,
Leicester.

JOHN COOPER,
General Manager.

[Other Official Notices appear on page 13]

THE BIGGEST COCKTAIL-SHAKER IN THE WORLD!

Here comes "the biggest cocktail-shaker in the world"—that's the nickname they give to the spanking new blue and red wine tanker recently built on a Thames Trader Articulated chassis to speed bulk deliveries of Martini on their way. Twice a day the tanker pulls alongside the vast new Martini warehouse in the Port of London and, in a matter of minutes, fills up with 2,000 gallons of this popular Italian aperitif. Then it's full speed ahead for the bottling stores where the wine will be racked, roused, sampled and passed in traditional manner—just as if it had arrived in the old-fashioned hogshead. "Seems a pity, though", said the smartly-uniformed Martini driver from the comfort of his Thames Trader cab, "that all the people who call out 'cheers' on the way can't stop me and have one!" Wine by tanker is yet another example of the ingenious ways in which the Thames range can save time and money in so many fields of trade and industry. If *you* have a specialised transport problem which has yet to be solved satisfactorily, why not discuss it this week with your Ford Dealer—his ideas might be worth a lot to your business!

Whatever your transport problem there's a Thames truck or chassis built to build YOUR business. Make your 'tonnage' choice from the 30 cwt. to 10 ton range and choose from the 4 or 6 cyl. engines with an option of petrol or diesel power.

BEST SELLING TRUCKS IN BRITAIN

THAMES TRADERS BY FORD

30 HUNDREDWEIGHT TO 10 TONS

SMITHFIELD MACHINERY

Lead in Farm Mechanisation Maintained

INDICATIONS are, as we go to press, that last year's high attendance at the Smithfield and Agricultural Machinery Show, particularly of overseas visitors, will have been substantially exceeded at this year's event, which closed at Earls Court on December 11. The Smithfield is now firmly established as a quite outstanding exhibition of agricultural engineering equipment, a fitting tribute to the intensive research and development that has provided this country with the most highly mechanised farming system in the world and a valuable source of foreign exchange from the extensive export of agricultural engineering products.

This year about £100 million will have been earned by these exports, the highest contribution coming from wheeled tractors, of which the United Kingdom exports more than the whole of the rest of the world put together. A remarkable fact is the level of tractor sales to North America, one of every 25 agricultural tractors sold in the United States alone being of entirely British manufacture, while tractor sales to Canada have doubled in recent years. Ford Motor Company has been shipping large numbers of tractors to the U.S.A. for the past three or four years, while British International Harvester, of which Canada is already the best customer, has been unable to meet United States demand for its Bradford-built tractors since the first machine was introduced there only eight months ago.

Developments in the tractor field this year are largely in the improvement of existing machines, though Allis-Chalmers Great Britain, Limited, has introduced the 150W diesel-engined tracked tractor with a weight of 11,920 lb.; Roadless Traction, Limited, presents its new four-wheel-drive version of the Fordson Dexta; and Massey-Ferguson (Great Britain), Limited, gives a first public showing of the 35 tractor fitted with Perkins three-cylinder diesel engine.

The David Brown 950 Implematic tractor appears with a modified hydraulics system which enables it to work with all types of implement, thus breaking the deadlock that has hitherto existed between depth wheels and automatic draft control. The new system will be applied to all standard David Brown tractors, as also will a differential lock, without price increase. Future productions of the Fordson Dexta tractor for the home market will be fitted with a standard ratchet handbrake, thus removing the need for the present pedal parking latch. The handbrake operates both rear-wheel brakes simultaneously, while permitting independent operation of the individual brake pedals to assist steering.

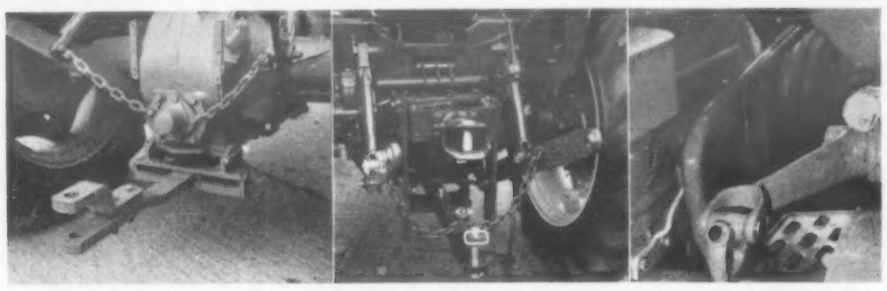
Nuffield Changes

Design changes in Nuffield Universal Three and Four tractors include an optional pedal-operated differential lock, available on new tractors at an additional cost of £5; an additional high-level hitch point, a solenoid starter switch and a modified hydraulic lift system that facilitates weight transference, all of which are now standard fitments; and independent rear-wheel brakes and a Clayton Dewandre vacuum braking system to permit the towing of heavy trailers on the road, both of which are optional fittings. The wheel brakes add £20 to the basic price and the vacuum fittings cost £55. Increasing demand for Nuffield tractors, of which 80 per cent are exported to 80 different countries, led to an announcement when the show opened that production is to be increased by 12½ per cent within the next month.

Another company to announce expansion of production on the eve of the show was International Harvester of Great Britain. Sales of I.H. tractors during the year ended October 31 was 32 per cent up on the 1958 figures and, with demand still increasing, the company is expanding the capacity of its Bradford factory to 100 B250 and B275 wheeled tractors a day. A very useful feature of a B275 tractor on display was a two-speed power take-off capable of operating at 555 or 1,000 r.p.m.

Little change is evident in the general design of diesel engines used in tractors, though the C.A.V. distributor-type fuel-injection pump is obviously gaining ground. The ubiquity of Perkins diesel engines, which are fitted by more than 40 of the world's agricultural machinery manufacturers, is emphasised and the Peterborough company introduced at the exhibition a new engine designed for larger tractors and equipment. Designated Six 288(TA), the new six-cylinder unit embodies the C.A.V. distributor pump with mechanical governor and C.A.V. Thermostart cold-starting aid. It develops a maximum of 76 b.h.p. at 2,000 r.p.m.

Principal exhibit on the Simms stand was the recently introduced Minipump, a new fuel-injection pump of very compact dimensions. It is available for three-, four- or six-cylinder engines of up to 1½ litres per cylinder. Although retaining conventional features of the in-line pump, high output from unusually small size has been achieved by machining the body containing the pump elements and fuel passages from solid steel sheet. The Minipump is offered with either pneumatic or mechanical governor. Another recently introduced Simms item on show was the NT injector tester, which permits the testing of these items in a completely enclosed cabinet.



Swinging drawbar on the Fordson Dexta; new high-hitch drawbar with vertical adjustment on David Brown tractors; extreme right, new handbrake now standard on the Fordson Dexta

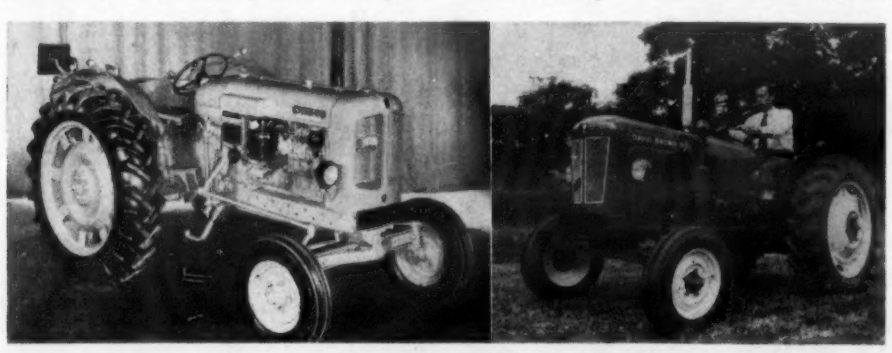
Fineness of control of Dowty hydrostatic transmission fitted to Fordson Major demonstrated recently on 1 in 1 gradient

Hydrostatic Transmission

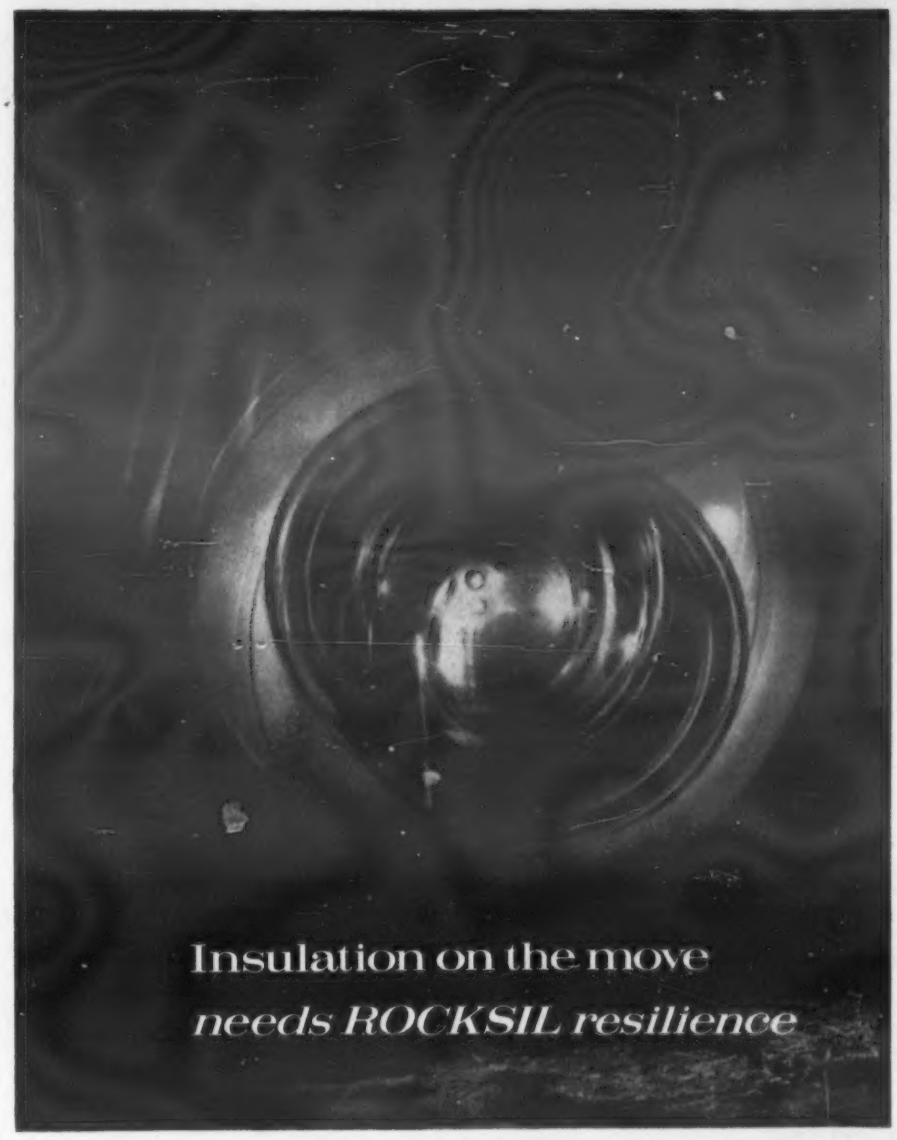
There has been further development of the hydrostatic type of infinitely variable hydraulic transmission that was introduced by two British companies last year, though production applications by agricultural tractor manufacturers are yet to come. The Lucas company displayed a range of pumps and motors developed for tractor transmission and a working model tractor demonstrated the working principles of the Lucas system. Another working demonstration showed a number of farming implements, which would otherwise require individual power units, using the tractor hydrostatic drive as a power source through quick-release couplings.

The Dowty hydrostatic transmission, now named Dowmatic since it was discovered that the original designation Transmatic could not be exclusive in some countries, was also shown as a working demonstration. Dowmatic transmission is claimed to be the most tested and developed hydrostatic vehicle transmission in the world; it has recently undergone extensive independent testing at the National Engineering Laboratories, the results of which are said completely to have substantiated claimed brochure performance. The Dowty unit is now in series production and has been adopted as standard equipment in a number of applications. Dowty also exhibited a wide range of hydraulic units and quick-release self-sealing couplings.

Among general tractor components, Bristol Metal Components new Sta-dri cabs for the Nuffield Three, International B275 and Fordson tractors were notable. The Dunlop stand carried a new disc brake unit for tractors. Developed from the company's road-vehicle disc brake, the new unit is designed for fitting inside the transmission casing; it is mechanically or hydraulically operated and has automatic adjustment for pad wear.



Nuffield Universal Four tractor, now fitted with differential lock and two hitch points and available with vacuum brakes with trailer pipe coupling; right, David Brown 950 Implematic tractor developed to work with all types of implement



Rocksil rock wool for heat conservation or cold storage insulation has special advantages for the manufacturers of road vehicles, both passenger and freight. Chief among them is its unique combination of low density, strength and resilience.

resistance to shakedown

Rocksil Slabs will last the lifetime of the vehicle without loss of thermal efficiency and strength. What is more, the resiliency of Rocksil Slabs minimizes deformation of panelling due to impact.

ROCKSIL Regd.

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THE CAPE ASBESTOS COMPANY LTD

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Glasgow: Hobden Street, Petershill Road, Glasgow N.1 Springburn 6144
Manchester: Floor D, National Buildings, St. Mary's Parsonage, Manchester 3 Deansgate 6016-7-8
Birmingham: 11 Waterloo Street, Birmingham 2 Midland 6565-6-7
Newcastle: 19 & 20 Exchange Buildings, Newcastle Newcastle 20488

TA2591

OFFICIAL NOTICES

NIGERIAN RAILWAY CORPORATION

ASSISTANT SIGNAL ENGINEER

SIGNAL INSPECTOR

THE Nigerian Railway Corporation invites applications for the following posts in the Signalling Departments:

(*a*) Assistant Signal Engineer.
(*b*) Signal Inspector.

Duties: Post (*a*): The Assistant Signal Engineer will be responsible to the Signal Engineer for the preparation of Signal and Telecommunication Schemes, which include Mechanical Signalling (Single Wire and Double Wire) Relay Interlocking, and Colour Light Signalling generally, telegraphs, Electric Signal Repeaters, Block Working, small automatic telephone exchanges, Telephone Train Control and Magneto Telephones and the installation, testing and maintenance of same. He will also be required to inspect all existing apparatus and works in progress.

Post (*b*): The Signal Inspector will be required to undertake the installation and repair of Double Wire Signalling apparatus.

Qualifications: Post (*a*): Candidates must have a sound technical and practical experience of the principles of Signalling and Communications as regards construction, installation, repair and maintenance and testing of Colour Light Signalling, Cabling, Telephone Train Control, Telegraph Circuits, Pole Lines, Mechanical Signalling and Single Line Block apparatus. A knowledge of V.H.F. radio would be an advantage.

Post (*b*): Candidates must have had a working experience of laying in mechanical signal apparatus, particularly the Westinghouse double wire type, be capable of repairing same and must be capable of taking charge of and instructing local signal staff on such works. A practical knowledge of interlocking, hand bench fitting and repairing is essential.

Salaries: Post (*a*): In scale £1,100 × £50 per annum to £1,900 per annum. Appointments may be on pensionable terms or on contract with a gratuity payable on completion of contract at the rate of £18 6s. 8d. to £31 13s. 4d. for each completed month of service.

Post (*b*): In scale £1,000 × £50 per annum to £1,500 per annum. Appointments are on contract with a gratuity payable on completion of contract at the rate of £16 13s. 4d. to £25 0s. 0d. for each completed month of service.

The above salary scales are inclusive of overseas pay and the starting salary will be according to qualifications and experience.

Tours: Fifteen months in Nigeria followed by 15 weeks' leave on full pay.

Quarters: Partly furnished quarters are provided at low rental.

Allowances: There are attractive family, travelling, transport and other allowances.

Send postcard before January 7, 1960, mentioning the post and this paper for further particulars and application form to: The London Representative, Nigerian Railway Corporation, Nigeria House, 9 Northumberland Avenue, London, W.C.2.

SALFORD CITY TRANSPORT

ANNUAL CONTRACTS

(*a*) Petrol, Paraffin, Fuel Oil, Lubricants, White Lead, Linseed Oil, Turpentine, Terebine, Brake Linings, Rope Yarn Waste, Cotton Wipers.
(*b*) Uniform Clothing (including waterproof clothing).
(*c*) Vehicle Livery Paints.

TENDERS ARE INVITED for supplies of the above items to the various Departments of the Corporation during the 12 months ending March 31, 1961.

Forms of Tender may be obtained on written application from: The General Manager and Engineer, Salford City Transport, Frederick Road, Salford, 6, Lancs.

Latest time for receipt of tenders is 9.30 a.m., on Wednesday, January 6, 1960.

R. RIBBLESDALE THORNTON,
Town Clerk.

[Another Official Notice appears on page 12]

...and now, 1,400 G.E.C. Traction Motors for the Central Line

A further order for 1,400 G.E.C. Traction Motors worth approximately £1¼ million has now been placed by the London Transport Executive. This, together with previous orders for the Metropolitan and Piccadilly Lines, brings the total to 2,656 motors valued at over £2¼ million, the largest order for traction motors ever placed in this country.

All the motors are for tube and surface rolling stock to implement London Transport's replacement programme announced last year and they will be built at the new traction motor works of the G.E.C. at Dudley Port, Staffordshire.

The 1,400 motors are of a new design and will have a continuous rating of 60 h.p. at 66% field. Previously 760 motors for the Piccadilly Line and 496 for the Metropolitan Line have been ordered and these will operate at 80 h.p. at 66% field and 68 h.p. at 60% field respectively. With the completion of these orders G.E.C. will have supplied nearly 6,000 railway traction motors to London Transport since 1925.

G.E.C. traction motors

THE GENERAL ELECTRIC COMPANY LIMITED OF ENGLAND
Witton Works, Birmingham 6

721

IMPORTANT CONTRACTS

A 22,000-ton Liner

AN order is announced by Vickers-Armstrongs from the Shaw Savill Line for a passenger vessel to run in the round-the-world service in conjunction with s.s. *Southern Cross*, for delivery in April, 1962. The new vessel will carry about 1,400 passengers, all one-class, and the passenger accommodation will follow, in general, the design which has proved so popular on *Southern Cross*. The vessel will be of about 22,000 tons gross register with a speed of 21 knots, on a horsepower of 22,000 s.h.p., and will be built in Vickers-Armstrongs' yard at Walker, Newcastle upon Tyne. She will follow the revolutionary design initiated by *Southern Cross* in having her engines and funnel aft and will carry no cargo.

Ruston Engines Ordered by Colvilles

Another order for Ruston locomotives has been received by Ruston and Hornsby, Limited, from the Colville group of steel companies. It is for 12 Mark 165DE 150-b.h.p. 28-ton 0-4-0 diesel-electric units arranged for single or tandem operation. Five are for the group's Dalzell works, four for the Glengarnock works and three for the Lanarkshire Steel works. The number of Ruston diesel-electric locomotives ordered by this group of Scottish companies since January, 1953, is now 42.

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E.M.I. Electronic Control Systems

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Eastern Region Contracts

The Eastern Region of British Railways announces the following contracts:

Carter-Horseley (Engineers), Limited, Waddon, for renewal of and repairs to bow-string girders and trusses supporting roof over openings in transit sheds at Parkeston Quay.

Wellerman Bros., Limited, Sheffield, 3, for works in connection with the provision of servicing facilities for diesel locomotives at Cambridge motive power depot.

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Drake and Gorham (Contractors), Limited, London, S.W.1, for electrical installations at Hackney Downs, Rectory Road, Stoke Newington, Stamford Hill and Seven Sisters Stations.

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SHIPPING and SHIPBUILDING

Seaway Traffic

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Japanese Lines Go into Air Cargo

NIPPON Yusen Kaisha, Osaka Shosen Kaisha and the Mitsui Steamship Company, which dominate liner cargo service in Japan, are considering establishing jointly a new air cargo transport company to inaugurate its operation from early next year. The initial capital would be about 60 million yen, or 80 million yen if the Japan Air Line Company joined. The new company would initially charter two Douglas DC-4 cargo aircraft to operate between Japan and San Francisco.

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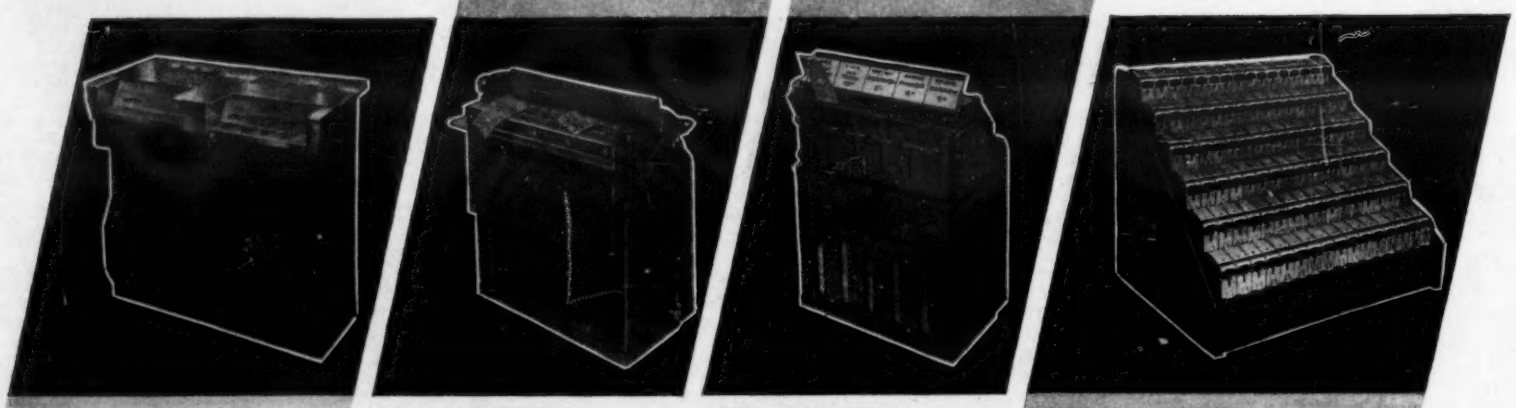
FARE COLLECTION SYSTEMS

Speed, ease, accuracy — these are the qualities everywhere associated with BELL PUNCH machines, four of which are shown here.

TOP SPEED TICKET ISSUE with BELL PUNCH



THE S.P.
For railways
Self printing for speed and accuracy, issuing 2 tickets per second.

THE SOLOMATIC
For one-man bus operation
Pre-printed coloured tickets from driver to passenger in a second — automatic overprint of stage, date, etc.

THE ULTIMATIC
For railways
Speedy issue of pre-printed coloured tickets with automatic dating.

THE BELLMATIC
For railways
Handy container units for clean, compact ticket storage.

CONTROL SYSTEMS PRODUCT

If you would like full information about these or about the many other products in the BELL PUNCH range, let us put you in touch with the BELL PUNCH distributor in your part of the world. He will gladly advise you on the BELL PUNCH method best suited to your needs.

BELL PUNCH EXPORT CO. LTD., 39 ST. JAMES'S STREET, LONDON, S.W.1. (CABLES: BELPUNCH LONDON)
A MEMBER OF THE LAMSON INDUSTRIES GROUP

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Comment on Ceylon Report

REFERENCE is made by the Chamber of Shipping to the report earlier this year of a Ceylonese Shipping Inquiry Commission (which included a U.K. member nominated by the shipping industry) to the Government of Ceylon on the future development of Ceylonese shipping. Two reports were presented—one signed by the non-Ceylonese members recommending that there should be no State ownership or State operation of ships, the other, signed by the Ceylonese members, recommending the setting up of a State shipping line. It is not known (says the Chamber) whether the latter suggestion will be adopted, but it is clear that Ceylon is already more than adequately served by existing shipping services. If it should be decided to build up a Ceylonese national fleet it can only be for political and prestige purposes, and the Council feels that everything possible should be done to dissuade the Government of Ceylon from such a policy at a time when there is already a world surplus of tonnage.

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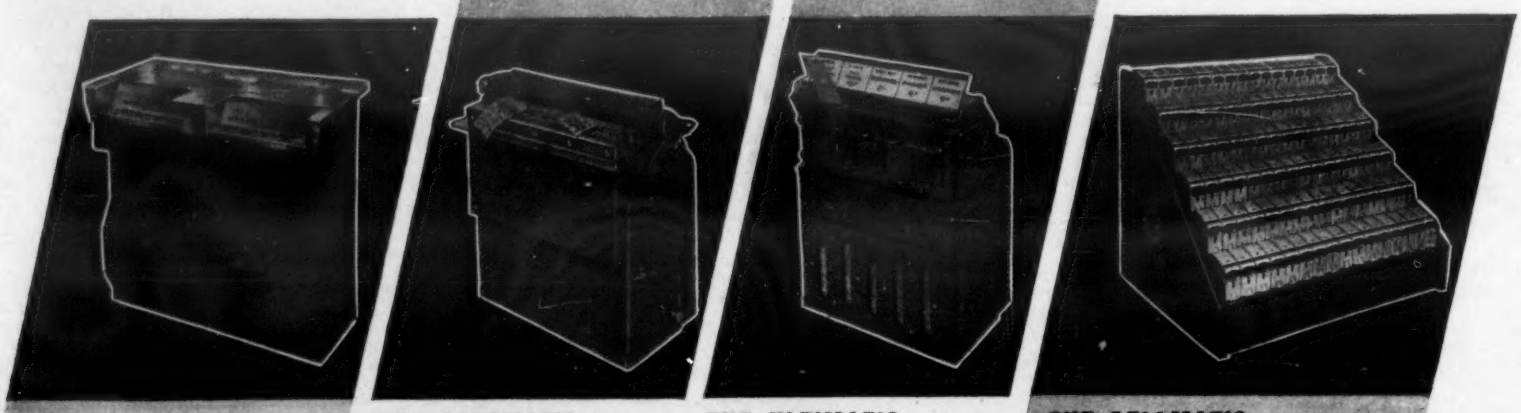

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SOCIAL AND PERSONAL

U.K. Chamber of Shipping

IN view of the increase in the activities of the Chamber of Shipping and the added responsibilities falling on the chief administrative officers, the council has decided to appoint the present general manager, Mr. H. E. Gorick, C.B.E., as director. This is a new post; the change of designation from general manager to director is in accordance with modern practice and is appropriate to the status of the chamber. The present assistant general manager, Mr. L. J. H. Horner, O.B.E., has been appointed general manager.

* * *

Mr. T. Jackson has been appointed assistant to commercial officer (coal), North Eastern Region, York.

* * *

We record with regret the death of Mr. T. H. Seaton, M.I.C.E., assistant engineer (maintenance), Southern Area, L.N.E.R., at the time of his retirement in 1947.

* * *

Mr. F. Whyman, B.Sc.Tech., M.I.E.E., M.I.Loco.E., appointed general manager, traction division of Associated Electrical Industries, Limited (located at Trafford Park), took an honours degree at Manchester University and joined Metropolitan-Vickers Electrical Co., Limited, in 1924 as a trainee in the traction department. He continued as an engineer in the traction control department until 1944, when he was appointed chief engineer, traction projects department.

Mr. F. Whyman

* * *

Mr. J. F. Wood, at present chief engineer, Eastern Counties Omnibus Co., Limited, has been appointed general manager of United Welsh Services, Limited. The appointment takes effect from January 1, 1960.

* * *

The Devon General Omnibus and Touring Co., Limited, announces that Mr. C. M. Williams, A.C.I.S., A.C.A., who is at present secretary of the Rhondda Transport Co., Limited, has been appointed, as from a date to be agreed, secretary-accountant of Devon General. He will succeed Mr. W. H. Geere, who will be retiring in a few months' time after more than 40 years' service with the National Electric Construction Co., Limited, and the Devon General company.

* * *

For 40 years Mr. Henry Otto Ernst has been in the service of the Swiss Federal Railways and the Swiss Travel Bureau in London. His retirement from the general managership is now imminent and on December 8 his friends in the travel and transport industry gave him a farewell luncheon presided over by Mr. Robert E. Sinfield, shipping and Continental manager, Southern Region, British Railways. He proposed "Our Guest of Honour" in moving terms, and was seconded by Mr. Charles Holt, managing director, Thos. Cook and Son, Limited. A silver tea service was presented on behalf of the friends present by Mr. Sinfield, and Mr. Ernst responded with thanks and some reminiscences. A tribute was also paid to Mr. Shirley H. James, who had organised the luncheon.

Lord Rusholme, chairman of the London Midland Region Area Board of the British Transport Commission at a dinner at Euston presents a silver salver to Sir Francis Glyn (left) to mark his retirement from the board

The dinner was attended by three directors of the former London Midland and Scottish Railway, Sir Robert Burrows, Sir Samuel Beale, and Lord Glyn, with the members of the present area board

Mr. R. F. Hanks, chairman of the Western Area Board of the British Transport Commission, recently reopened the Mechanics Institute of the Western Region in its improved premises at Swindon. The Institute was erected by the New Swindon Improvement Company, founded in 1853 by the works employees who took shares in the undertaking. When the company was wound up, the premises were vested in trustees. In 1956 it was agreed to merge the Institute and the Swindon Staff Association branch. Mr. R. A. Smeddle, chief mechanical and electrical engineer, and president of the Institute, welcomed Mr. Hanks.

* * *

After more than 12 years' service with British European Airways and 28 years' association with commercial flying, Captain Henry J. Johnson has retired on reaching the age of 72. His connection with air transport began when Mr. Edward Hillman, then an Essex coach operator, ventured into commercial aviation and appointed Johnson as manager of an air charter business he had started. Previously, Captain Johnson had been chief inspector of the Hillman coach fleet. Equipped with a three-seat DH80A Puss Moth and a four-seat DH83 Fox Moth, the business grew and Hillman then acquired a fleet of DH84 Dragons and opened regular scheduled passenger services, first from Maylands and later from Abridge to numerous places in Britain and across the Channel. Johnson played a major part in this development. In 1935 when Hillman's Airways was amalgamated with other companies to form British Airways, he became the senior traffic officer and then with the formation of B.O.A.C. he continued his employment as before. On B.E.A. being formed in 1946, Captain Johnson transferred to the corporation with which, over the years, he has held various appointments in the commercial and sales departments.

Mr. A. I. Emerson, B.Sc., A.M.I.C.E., formerly assistant (permanent way), North Eastern Region, has been appointed district engineer, Cambridge, Eastern Region, B.R.

* * *

The Railway Students' Association new year dinner and dance will take place on January 6 at the London School of Economics, where so many successful functions used to be held in prewar days.

* * *

The chief assistant to the general manager, East African Railways and Harbours, Mr. R. M. L. Lemon, has been appointed acting chief operating superintendent. He takes the place of Mr. G. P. G. Mackay who is going on leave.

* * *

Mr. J. D. Slater, commercial director of A.E.C., has left with Mr. J. Ford, secretary of A.E.C., to visit South Africa and Rhodesia in furtherance of the substantial manufacturing and sales programme recently announced by A.E.C. Vehicles (South Africa), Limited.

* * *

Mr. G. R. Higgs, B.Sc., M.I.E.E., M.I.Loco.E., who has been appointed chief engineer, A.E.I. traction division, received his technical education at the Universities of Glasgow and St. Andrews, and joined Metropolitan-Vickers in 1920 as a college apprentice. He then had eight years' experience on the erection and commissioning of electric locomotives on overseas contracts. His subsequent work, apart from three years on gas turbine work during the war, has been on the design of electric and diesel - electric locomotives and trains. He was appointed assistant chief engineer, traction projects department, in 1950, and chief engineer of that department in January, 1959.

Mr. G. R. Higgs

* * *

Mr. John Hay, Joint Parliamentary Secretary, Ministry of Transport, has appointed Mr. Ernest Partridge, M.P., as his Parliamentary Private Secretary.

* * *

The Peninsular and Oriental Steam Navigation Company has announced the appointment of Mr. Alexander Donnelly as assistant superintendent engineer as from December 1.

* * *

Twelve London bus drivers last week received one of the highest safety-first awards in Britain—silver crosses for 35 consecutive years of perfect driving. With each award, presented by Mr. John B. Burnell, operating manager, Central Road Services, went a £25 cash gift from London Transport.

* * *

The London Midland Region announces the following staff appointments:

Mr. E. W. Hill to be assistant district passenger manager, Manchester.

Mr. R. D. Lattimer to be assistant (modernisation), Euston O.O.O. (located Euston).

Mr. R. R. Butter to be assistant (modernisation), Euston O.O.O. (located Birmingham).

Mr. B. Wood, assistant (budgetary control and progress), chief civil engineer's department, Euston.

Mr. J. Thorpe, chief technical assistant (carriage and wagon), Derby.

Mr. F. Warburton, assistant outdoor machinery engineer, chief mechanical and electrical engineer's department, Derby.

* * *

The annual dinner of the Merseyside section of the Institute of Transport took place at the Exchange Hotel, Liverpool, on November 27. The president of the Institute, Mr. Reginald G. Grout, responded to the toast "The Institute of Transport" proposed by Mr. R. T. Crake, chairman of the section, who presided. The toast "The Port of Liverpool" was proposed by Mr. M. G. E. Lambert, and the reply was made by Mr. M. Arnet Robinson. "Our Guests" was proposed by Mr. R. Whatling and replied to by Mr. T. Gore, principal, City of Liverpool College of Commerce.

* * *

As already recorded, Mr. G. D. Ramsay has been appointed traffic manager of the Western S.M.T. Co., Limited, in succession to the late Mr. J. M. Harper. It was in Mr. Harper's family business at Peebles that Mr. Ramsay started his transport career in 1929. In 1932 he transferred to the Caledonian Omnibus Co., Limited, Dumfries, latterly in the schedules and traffic inquiry departments. After Caledonian was merged with Western S.M.T. as a result of the Tilling group acquisition, Mr. Ramsay was in 1951 appointed district traffic superintendent at Ayr. In recent years he has been mainly responsible for traffic court work, tours and schedules and during Mr. Harper's long illness carried out the duties of traffic manager.

Mr. G. D. Ramsay

* * *

Awards gained in the 1958 competitions organised by the Road Operators' Safety Council, by Devon General drivers and conductors included seven bronze bars to the 30 years' brooch, representing 32 years of driving free from blameworthy accidents, and 16 bronze bars to the 25 years' cross. The awards were presented at a social function held at the Globe Hotel, Newton Abbot, by Councillor N. P. Roberts, J.P., Newton Abbot Urban District Council.

* * *

A new association, entitled the Road and Rail Association, has been formed. Its primary objective is to encourage a more effective use of the nation's internal freight transport facilities, including road, rail, inland waterways and coastal shipping. Among the founder members are Lord Amwell, who was Under-Secretary of State for Air, 1929-31, Parliamentary Secretary to the Ministry of Transport, 1940-41, and Parliamentary Secretary to the Ministry of Aircraft Production, 1941-42; Mr. Bernard Braine, Conservative M.P. for South East Essex, Sir Kenneth Grubb, a publicity executive, Mr. David Hardman and Mr. Claude Simmonds. The joint secretaries are Messrs. P. Thursfield and R. Ramirez. The founders believe that the present distribution of freight movements is economically wasteful to the country as a whole.

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Illustrated, Bedford's latest 6 cu. yd. normal control tipper.

BEDFORD

Normal control 6 cu. yard

6½ ton rating with single speed axle — 7 ton rating with two-speed axle 300 cu. in. Bedford-built 6-cyl. diesel. Bedford 2-speed rear axle (capacity 18,000 lbs.) giving low ratio for super traction, high ratio for speed and economy when travelling light. Diesel chassis from £1,035, chassis-cab £1,110, tipper £1,355.

Normal control 5 cu. yard

6 ton rating. Powered by 214 cu. in. six-cylinder petrol engine or 300 cu. in. diesel. Single ratio rear axle fitted as standard, but Bedford 2-speed axle available as a regular production option. Petrol chassis £800, chassis-cab £875, tipper £1,040.

Forward control 6 cu. yard

7 ton rating. The logical choice for town building sites and in confined work areas. Overall length only 17 ft. 5½ ins. and turning circle 42 ft. Powered by Bedford 300 cu. in. diesel, or petrol, or by 350 cu. in. diesel. Bedford 2-speed axle optional. Diesel chassis £1,047, chassis-cab £1,127, tipper from £1,340.

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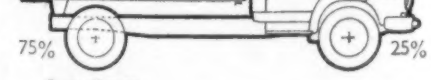
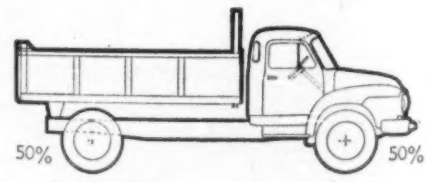


Laden

When this Bedford 6 cu. yd. normal control tipper is fully laden, 75% of the weight is on the rear wheels, giving splendid traction and lots of grip for slippery gradients. No bogging down here!



Unladen

Even when unladen, half the weight is still on the driving wheels to give grip and prevent spinning in soft ground . . . Smartly into position, smartly away: that's Bedford!

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